# ARIZONA AMERICAN WATER COMPANY, INC. (PARADISE VALLEY WATER DISTRICT)

DOCKET NO. W-01303A-05-0405

DIRECT TESTIMONY

OF

WILLIAM A. RIGSBY

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

JANUARY 17, 2006

Direct Test	mony of William A. Rigsby
Docket No.	W-01303A-05-0405

1	INTRODUCTION1
2	SUMMARY OF TESTIMONY AND RECOMMENDATIONS4
3	COST OF EQUITY CAPITAL7
4	Discounted Cash Flow (DCF) Method8
5	Capital Asset Pricing Model (CAPM) Method27
6	Current Economic Environment34
7	CAPITAL STRUCTURE48
8	COMMENTS ON ARIZONA-AMERICAN'S COST OF EQUITY CAPITAL
9	TESTIMONY51
9 10	TESTIMONY51 APPENDIX 1
10	APPENDIX 1
10 11	APPENDIX 1 ATTACHMENT A
10 11 12	APPENDIX 1 ATTACHMENT A ATTACHMENT B
10 11 12 13	APPENDIX 1 ATTACHMENT A ATTACHMENT B ATTACHMENT C

### **INTRODUCTION**

- 2 Q. Please state your name, occupation, and business address.
  - A. My Name is William A. Rigsby. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO") located at 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.
  - Q. Please state your educational background and your qualifications in the field of utilities regulation.
    - A. Appendix I, which is attached to this testimony, describes my educational background and also includes a list of the rate cases and regulatory matters that I have been involved with.
    - Q. What is the purpose of your testimony?
    - A. The purpose of my testimony is to present recommendations that are based on my analysis of Arizona-American Water Company's ("Arizona-American" or "Company") application for a permanent rate increase ("Application") for the Company's Paradise Valley Water District ("PV Water").
  - Q. Briefly describe Arizona-American.
  - A. In addition to PV Water, Arizona-American operates ten other water and wastewater systems in Arizona. The Company is a subsidiary of American Water, which is based in Voorhees, New Jersey. According to

information contained on American Water's website<sup>1</sup> American Water provides water and wastewater service to customers in nineteen other states (including California, Hawaii and New Mexico in the western U.S.) and three Canadian provinces. Both American Water and its sister company Thames Water (which serves communities in the United Kingdom), are presently owned by RWE AG, a large multinational utility holding company headquartered in Essen, Germany<sup>2</sup>.

Q. Please explain your role in RUCO's analysis of Arizona-American's Application.

A. I reviewed Arizona-American's Application and performed a cost of capital analysis to determine a fair rate of return on the Company's invested capital. In addition to my recommended capital structure, my direct testimony will present my recommended costs of common equity and my recommended cost of debt (the Company has no preferred stock). The recommendations contained in this testimony are based on information obtained from Company responses to data requests, the Company's

http://www.amwater.com

<sup>&</sup>lt;sup>2</sup> In a press release dated November 4, 2005, RWE AG announced its intentions to divest both of its water business segments, which include Thames Water in the UK and American Water in North America. RWE stated that it had made the decision because the Company believes it can make better use of its core strengths by concentrating on the converging European electricity and gas markets. RWE also stated that limited synergies between its North American and UK water businesses and its European energy business were a major factor in the decision. RWE AG further stated that its aim is to temporarily increase its dividend payout ratio on completion of each transaction and to reduce debt.

PV Water<sup>4</sup>.

1 2 Application and from market-based research that I conducted during my analysis.

No. In addition to providing testimony, as a witness for RUCO, on the cost

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Q. Is this your first case involving Arizona-American?

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of capital issues associated with the Company's last rate case proceeding before the ACC<sup>3</sup>, I also recommended, as a Senior Rate Analyst on the ACC Staff, that the Commission reauthorize a revolving line of credit for

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Q. Were you also responsible for conducting an analysis on the Company's proposed revenue level, rate base, rate design, and surcharges which are designed to encourage water conservation, to recover the costs associated with public safety improvements (i.e. fire flow capital improvement), and to comply with the U.S. Environmental Protection Agency's ("EPA") revised arsenic standard which goes into effect this year?

Α. No. RUCO witnesses Rodney L. Moore, Timothy J. Coley, and Marylee Diaz Cortez, CPA, handled those aspects of the Company's Application. The operating revenue and expense issues associated with this case will be covered in the direct testimony of Mr. Moore. Mr. Moore will also

Docket No. W-01335A-02-0867 et al.

Docket No. W-01335A-00-0327

provide testimony on the Company's request for an arsenic cost recovery mechanism ("ACRM"). Mr. Coley will provide direct testimony on RUCO's recommendations regarding rate base and rate design. Ms. Diaz Cortez will address Arizona-American's requests for surcharges to encourage water conservation and to provide cost recovery for the Company-proposed fire flow capital improvement plan ("FFIP").

- Q. What areas will you address in your testimony?
- A. I will address the cost of capital issues associated with the case.

- Q. Please identify the exhibits that you are sponsoring.
- 12 A. I am sponsoring Schedules WAR-1 through WAR-9.

#### **SUMMARY OF TESTIMONY AND RECOMMENDATIONS**

- Q. Briefly summarize how your cost of capital testimony is organized.
- A. My cost of capital testimony is organized into three sections. First, I will present the findings of my cost of equity capital analysis, which utilized both the discounted cash flow ("DCF") method, and the capital asset pricing model ("CAPM"). These are the two methods that RUCO and ACC Staff have consistently used for calculating the cost of equity capital in rate case proceedings in the past, and are the methodologies that the ACC has given the most weight to in setting allowed rates of returns for utilities that operate in the Arizona jurisdiction. In this first section I will also

provide a brief overview of the current economic climate that Arizona-American is operating in. Second, I will compare my recommended capital structure with the Company-proposed capital structure. Third, I will comment on Arizona-American's cost of capital testimony. WAR-1 through WAR-9 will provide support for my cost of capital analysis.

- Q. Please summarize the recommendations and adjustments that you will address in your testimony.
- A. Based on the results of my analysis of Arizona-American, I am making the following recommendations:

Cost of Equity Capital – I am recommending a 10.00 percent cost of equity capital. This 10.00 percent figure is based on the results that I obtained in my cost of equity analysis, which employed both the DCF and CAPM methodologies.

Cost of Debt – I am recommending that the Commission adopt Arizona-American's proposed 5.42 percent cost of debt. This is based on my review of the costs associated with Arizona-American's various long-term notes and payment in lieu of revenue ("PILR") financing arrangements.

<u>Capital Structure</u> – I am recommending that the Company-proposed capital structure, which is comprised of approximately 37 percent common equity and 63 percent debt, be adopted by the Commission.

Cost of Capital – Based on the results of my recommended capital structure, cost of common equity, and debt analyses, I am recommending a 7.10 percent cost of capital for Arizona-American. This figure represents the weighted cost of both the Company's common equity and debt.

Q. Why do you believe that your recommended 7.10 percent cost of capital is an appropriate rate of return for Arizona-American to earn on its invested capital?

Α.

The 7.10 percent cost of capital figure that I have recommended meets the criteria established in the landmark Supreme Court cases of <u>Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia</u> (262 U.S. 679, 1923) and <u>Federal Power Commission v. Hope Natural Gas Company</u> (320 U.S. 391, 1944). Simply stated, these two cases affirmed that a public utility that is efficiently and economically managed is entitled to a return on investment that instills confidence in its financial soundness, allows the utility to attract capital, and also allows the utility to perform its duty to provide service to ratepayers. The rate of return adopted for the utility should also be comparable to a return that investors would expect to receive from investments with similar risk.

The <u>Hope</u> decision allows for the rate of return to cover both the operating expenses and the "capital costs of the business" which includes interest on debt and dividend payment to shareholders. This is predicated on the belief that, in the long run, a company that cannot meet its debt obligations and provide its shareholders with an adequate rate of return will not continue to supply adequate public utility service to ratepayers.

Q. Do the <u>Bluefield</u> and <u>Hope</u> decisions indicate that a rate of return sufficient to cover all operating and capital costs is guaranteed?

A. No. Neither case *guarantees* a rate of return on utility investment. What the <u>Bluefield</u> and <u>Hope</u> decisions *do allow*, is for a utility to be provided with the *opportunity* to earn a reasonable rate of return on its investment. That is to say that a utility, such as Arizona-American, is provided with the opportunity to earn an appropriate rate of return if the Company's management exercises good judgment and manages its assets and resources in a manner that is both prudent and economically efficient.

#### **COST OF EQUITY CAPITAL**

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Q. What is your recommended cost of equity capital for Arizona-American?

Based on the results of my DCF and CAPM analyses, which ranged from 8.63 percent to 10.55 percent for a sample of publicly traded water and

gas providers, I am recommending a 10.00 percent cost of equity capital

for Arizona-American. My recommended 10.00 percent figure is the

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adjusted result of a DCF analysis, which utilized a sample of publicly traded water providers.

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#### **Discounted Cash Flow (DCF) Method**

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21 22 Q. Please explain the DCF method that you used to estimate Arizona-American's cost of equity capital.

The DCF method employs a stock valuation model that is often referred to as either the constant growth valuation model or the Gordon<sup>5</sup> model. Simply stated, the DCF model is based on the premise that the current price of a given share of common stock is determined by the present value of all of the future cash flows that will be generated by that share of common stock. The rate that is used to discount these cash flows back to their present value is often referred to as the investor's cost of capital (i.e. the cost at which an investor is willing to forego other investments in favor of the one that he or she has chosen).

Another way of looking at the investor's cost of capital is to consider it from the standpoint of a company that is offering its shares of stock to the investing public. In order to raise capital, through the sale of common stock, a company must provide a required rate of return on its stock that will attract investors to commit funds to that particular investment. In this respect, the terms "cost of capital" and "investor's required return" are one in the same. For common stock, this required return is a function of the

<sup>&</sup>lt;sup>5</sup> Named after Dr. Myron J. Gordon, the professor of finance who developed the model.

where:

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dividend that is paid on the stock. The investor's required rate of return can be expressed as the percentage of the dividend that is paid on the stock (dividend yield) plus an expected rate of future dividend growth. This is illustrated in mathematical terms by the following formula:

 $k = (D_1 \div P_0) + q$ 

k the required return (cost of equity, equity capitalization rate),

 $D_1 \div P_0 =$ the dividend yield of a given share of stock calculated by dividing the expected dividend by the current market price of the given share of stock, and

the expected rate of future dividend growth. g

This formula is the basis for the standard growth valuation model that I used to determine Arizona-American's cost of equity capital. It is similar to the model that was used by the Company.

- In determining the rate of future dividend growth for Arizona-American, what assumptions did you make?
- Α. There are two primary assumptions regarding dividend growth that must be made when using the DCF method. First, dividends will grow by a constant rate into perpetuity, and second, the dividend payout ratio will

remain at a constant rate. Both of these assumptions are predicated on the traditional DCF model's basic underlying assumption that a company's earnings, dividends, book value and share growth all increase at the same constant rate of growth into infinity. Given these assumptions, if the dividend payout ratio remains constant, so does the earnings retention ratio (the percentage of earnings that are retained by the company as opposed to being paid out in dividends). This being the case, a company's dividend growth can be measured by multiplying its retention ratio (1 - dividend payout ratio) by its book return on equity. This can be stated as  $g = b \times r$ .

- Q. Would you please provide an example that will illustrate the relationship that earnings, the dividend payout ratio and book value have with dividend growth?
- A. RUCO consultant Stephen Hill illustrated this relationship in a Citizens

  Utilities Company 1993 rate case by using a hypothetical utility.<sup>6</sup>

			Table I			
	Year 1	Year 2	Year 3	Year 4	Year 5	Growth
Book Value	\$10.00	\$10.40	\$10.82	\$11.25	\$11.70	4.00%
Equity Return	10%	10%	10%	10%	10%	N/A
Earnings/Sh.	\$1.00	\$1.04	\$1.082	\$1.125	\$1.170	4.00%
Payout Ratio	0.60	0.60	0.60	0.60	0.60	N/A
Dividend/Sh	\$0.60	\$0.624	\$0.649	\$0.675	\$0.702	4.00%

<sup>&</sup>lt;sup>6</sup> Citizens Utilities Company, Arizona Gas Division, Docket No. E-1032-93-111, Prepared Testimony, dated December 10, 1993, p. 25.

Table I of Mr. Hill's illustration presents data for a five-year period on his hypothetical utility. In Year 1, the utility had a common equity or book value of \$10.00 per share, an investor-expected equity return of ten percent, and a dividend payout ratio of sixty percent. This results in earnings per share of \$1.00 (\$10.00 book value x 10 percent equity return) and a dividend of \$0.60 (\$1.00 earnings/sh. x 0.60 payout ratio) during Year 1. Because forty percent (1 - 0.60 payout ratio) of the utility's earnings are retained as opposed to being paid out to investors, book value increases to \$10.40 in Year 2 of Mr. Hill's illustration. Table I presents the results of this continuing scenario over the remaining five-year period.

The results displayed in Table I demonstrate that under "steady-state" (i.e. constant) conditions, book value, earnings and dividends all grow at the same constant rate. The table further illustrates that the dividend growth rate, as discussed earlier, is a function of (1) the internally generated funds or earnings that are retained by a company to become new equity, and (2) the return that an investor earns on that new equity. The DCF dividend growth rate, expressed as  $g = b \times r$ , is also referred to as the internal or sustainable growth rate.

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- Q. If earnings and dividends both grow at the same rate as book value, shouldn't that rate be the sole factor in determining the DCF growth rate?
- A. No. Possible changes in the expected rate of return on either common equity or the dividend payout ratio make earnings and dividend growth by themselves unreliable. This can be seen in the continuation of Mr. Hill's illustration on a hypothetical utility.

			Table II			
	Year 1	Year 2	Year 3	Year 4	Year 5	Growth
Book Value	\$10.00	\$10.40	\$10.82	\$11.47	\$12.158	5.00%
Equity Return	10%	10%	15%	15%	15%	10.67%
Earnings/Sh	\$1.00	\$1.04	\$1.623	\$1.720	\$1.824	16.20%
Payout Ratio	0.60	0.60	0.60	0.60	0.60	N/A
Dividend/Sh	\$0.60	\$0.624	\$0.974	\$1.032	\$1.094	16.20%

In the example displayed in Table II, a sustainable growth rate of four percent<sup>7</sup> exists in Year 1 and Year 2 (as in the prior example). In Year 3, Year 4 and Year 5, however, the sustainable growth rate increases to six percent.<sup>8</sup> If the hypothetical utility in Mr. Hill's illustration were expected to earn a fifteen-percent return on common equity on a continuing basis, then a six percent long-term rate of growth would be reasonable. However, the compound growth rates for earnings and dividends, displayed in the last column, are 16.20 percent. If this rate were to be

<sup>&</sup>lt;sup>7</sup> [ ( Year 2 Earnings/Sh – Year 1 Earnings/Sh )  $\div$  Year 1 Earnings/Sh ] = [ ( \$1.04 - \$1.00 )  $\div$  \$1.00 ] = [ \$0.04  $\div$  \$1.00 ] = 4.00%

 $<sup>^{8}</sup>$  [ ( 1 – Payout Ratio ) x Rate of Return ] = [ ( 1 - 0.60 ) x 15.00% ] = 0.40 x 15.00% =  $\underline{6.00\%}$ 

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used in the DCF model, the utility's return on common equity would be expected to increase by fifty percent every five years, [(15 percent  $\div$  10 percent) – 1]. This is clearly an unrealistic expectation.

Although it is not illustrated in Mr. Hill's hypothetical example, a change in only the dividend payout ratio will eventually result in a utility paying out more in dividends than it earns. While it is not uncommon for a utility in the real world to have a dividend payout ratio that exceeds one hundred percent on occasion, it would be unrealistic to expect the practice to continue over a sustained long-term period of time.

- Other than the retention of internally generated funds, as illustrated in Mr.

  Hill's hypothetical example, are there any other sources of new equity capital that can influence an investor's growth expectations for a given company?
- A. Yes, a company can raise new equity capital externally. The best example of external funding would be the sale of new shares of common stock. This would create additional equity for the issuer and is often the case with utilities that are either in the process of acquiring smaller systems or providing service to rapidly growing areas.

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- Q. How does external equity financing influence the growth expectations held by investors?
- A. Rational investors will put their available funds into investments that will either meet or exceed their given cost of capital (i.e. the return earned on their investment). In the case of a utility, the book value of a company's stock usually mirrors the equity portion of its rate base (the utility's earning base). Because regulators allow utilities the opportunity to earn a reasonable rate of return on rate base, an investor would take into consideration the effect that a change in book value would have on the rate of return that he or she would expect the utility to earn. If an investor believes that a utility's book value (i.e. the utility's earning base) will increase, then he or she would expect the return on the utility's common stock to increase. If this positive trend in book value continues over an extended period of time, an investor would have a reasonable expectation for sustained long-term growth.
- Q. Please provide an example of how external financing affects a utility's book value of equity.
  - As I explained earlier, one way that a utility can increase its equity is by selling new shares of common stock on the open market. If these new shares are purchased at prices that are higher than those shares sold previously, the utility's book value per share will increase in value. This would increase both the earnings base of the utility and the earnings

1 expectations of investors. However, if new shares sold at a price below 2 the pre-sale book value per share, the after-sale book value per share 3 declines in value. If this downward trend continues over time, investors 4 might view this as a decline in the utility's sustainable growth rate and will 5 have lower expectations regarding growth. Using this same logic, if a new 6 stock issue sells at a price per share that is the same as the pre-sale book 7 value per share, there would be no impact on either the utility's earnings 8 base or investor expectations.

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- Q. Please explain how the external component of the DCF growth rate is determined.
- A. In his book, The Cost of Capital to a Public Utility, Dr. Myron Gordon, the individual responsible for the development of the DCF or constant growth model, identified a growth rate that includes both expected internal and external financing components. The mathematical expression for Dr. Gordon's growth rate is as follows:

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$$g = (br) + (sv)$$

where: g = DCF expected growth rate,

b = the earnings retention ratio,

r = the return on common equity,

s = the fraction of new common stock sold that accrues to a current shareholder, and

<sup>&</sup>lt;sup>9</sup> Gordon, M.J., <u>The Cost of Capital to a Public Utility</u>, East Lansing, MI: Michigan State University, 1974, pp. 30-33.

1	V	=	funds raised from the sale of stock as a fraction
2			of existing equity.

and 
$$v = 1 - [(BV) \div (MP)]$$

- Q. Did you include the effect of external equity financing on long-term growth rate expectations in your analysis of expected dividend growth for the DCF model?
- A. Yes. The external growth rate estimate (sv) is displayed on Page 1 of Schedule WAR-4, where it is added to the internal growth rate estimate (br) to arrive at a final sustainable growth rate estimate.
- Q. Please explain why your calculation of external growth on page 2 of Schedule WAR-4, is the current market-to-book ratio averaged with 1.0 in the equation  $[(M \div B) + 1] \div 2$ .
- A. The market price of a utility's common stock will tend to move toward book value, or a market-to-book ratio of 1.0, if regulators allow a rate of return that is equal to the cost of capital (one of the desired effects of regulation).

  As a result of this situation, I used [(M ÷ B) + 1] ÷ 2 as opposed to the current market-to-book ratio by itself to represent investor's expectations that, in the future, a given utility will achieve a market-to-book ratio of 1.0.

- Q. How did you develop your dividend growth rate estimate?
  - A. I analyzed data on two separate proxy groups. A water company proxy group comprised of four publicly traded water companies and a natural gas proxy group consisting of eight natural gas local distribution companies ("LDC") which have similar operating characteristics to water providers.

8 Q. Why did you use a proxy group methodology as opposed to a direct analysis of Arizona-American?

A. One of the problems in performing this type of analysis is that the utility applying for a rate increase is not always a publicly traded company, as is the case with Arizona-American itself. Although shares of Arizona-American's holding company, RWE AG of Germany, are traded in the U.S. in the form of American depository receipts or ADR's (ticker symbol RWEOY in the case of RWE AG), there is no financial data available on dividends paid on *publicly held* shares of American Water, Arizona-American or PV Water. Consequently it was necessary to create a proxy by analyzing publicly traded water companies with similar risk characteristics.

Q. Are there any other advantages to the use of a proxy?

A. Yes. As I noted earlier, the U.S. Supreme Court ruled in the <u>Hope</u> decision that a utility is entitled to earn a rate of return that is

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commensurate with the returns on investments of other firms with comparable risk. The proxy technique that I have used derives that rate of return. One other advantage to using a sample of companies is that it reduces the possible impact that any undetected biases, anomalies, or measurement errors may have on the DCF growth estimate.

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Q. What criteria did you use in selecting the companies that make up your water company proxy for Arizona-American?

Three of the water companies used in the proxy are publicly traded on the

New York Stock Exchange ("NYSE"), and one of them, Southwest Water

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11 Company is traded over the counter through the National Association of
12 Securities Dealers Automated Quotation System ("NASDAQ"). All four
13 water companies are followed by The Value Line Investment Survey

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large capitalization Water Utility Industry segment of the U.S. economy

("Value Line") and are the same companies that comprise Value Line's

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(Attachment A contains Value Line's October 28, 2005 update of the water

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utility industry and evaluations of the four water companies used in my

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proxy).

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- A. My water company proxy group includes American States Water

What companies comprise your water company proxy group?

formerly known as Philadelphia Suburban Corporation, and California

Company (stock ticker symbol "AWR"), Agua America, Inc. ("WTR"),

Water Service Group ("CWT"). The fourth water company, Southwest Water Company ("SWWC"), is a new addition to Value Line's water industry segment and debuted in the October 28, 2005 edition of Value Line's <u>Ratings and Reports</u> publication. Each of these water companies face the same types of risk that Arizona-American's PV Water system faces. For the sake of brevity, I will refer to each of these companies by their appropriate stock ticker symbols henceforth.

- Q. Briefly describe the areas served by the companies in your water company sample proxy.
- A. In addition to providing water service to residents of Fountain Hills, Arizona, through its wholly owned subsidiary Chaparral City Water Company, AWR serves communities located in Los Angeles, Orange and San Bernardino counties in California. CWT provides service to customers in seventy-five communities in California, New Mexico and Washington. CWT's principal service areas are located in the San Francisco Bay area, the Sacramento, Salinas and San Joaquin Valleys and parts of Los Angeles. SWWC owns and manages regulated systems in California, New Mexico, Oklahoma and Texas. WTR, is a holding company for a large number of water and wastewater utilities operating in nine different states including Pennsylvania, Ohio, New Jersey, Illinois, Main, North Carolina, Texas, Florida and Kentucky.

- Q. Are these the same water companies that Arizona-American used in itsapplication?
  - A. Arizona-American's cost of capital witness, Dr. Michael J. Vilbert, used the same four water companies included in my proxy. In addition to these four companies, Dr. Vilbert also used four other water companies<sup>10</sup> that are included in Value Line's Small and Mid Cap Edition.
  - Q. Why did you exclude the water companies that are followed in Value Line's Small and Mid Cap Edition?
    - A. Value Line does not provide the same type of forward-looking information (i.e. long-term estimates on return on common equity and share growth) on small and mid-cap companies that it provides on the four water companies that I used in my proxy. Consequently, these water companies are not as suitable as the ones that I have used in my analysis.
    - Q. What criteria did you use in selecting the eight natural gas LDC's that make up your proxy for Arizona-American?
    - A. As are the water companies that I just described, each of the natural gas LDC's used in the proxy are publicly traded on a major stock exchange (all eight trade on the NYSE) and are followed by Value Line. Each of the eight LDC's are tracked in Value Line's natural gas (distribution) industry segment. All of the companies in the proxy are engaged in the provision

<sup>&</sup>lt;sup>10</sup> Connecticut Water Service, Inc., Middlesex Water Company, SJW Corp. and York Water Co.

of regulated natural gas distribution services. Attachment B of my testimony contains Value Line's most recent evaluation of the natural gas proxy group that I used for my cost of common equity analysis.

- Q. What companies are included your natural gas sample proxy?
- A. The eight natural gas LDC's included in my proxy (and their NYSE ticker symbols) are Cascade Natural Gas Corporation ("CGC"), KeySpan Corp. ("KSE"), Laclede Group, Inc. ("LG"), Northwest Natural Gas Co. ("NWN"), Peoples Energy Corporation ("PGL"), South Jersey Industries, Inc. ("SJI") Southwest Gas Corporation ("SWX"), which is the dominant natural gas provider in Arizona and presently has a rate application before the ACC, and WGL Holdings, Inc. ("WGL").

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Q. Briefly describe the regions of the U.S. served by the eight natural gas LDC's that make up your sample proxy.

A. The eight LDC's listed above provide natural gas service to customers in the Northeast (i.e. KSE which serves New York and New England), the Middle Atlantic region (i.e. SJI which serves southern New Jersey and WGL which serves the Washington D.C. metro area). The Midwest (i.e. PGL which provides service to Chicago and its suburbs respectively, and LG which serves the St. Louis area), and the Pacific Northwest (i.e. CGC and NWN which serve Washington state and Oregon). Portions of

Arizona, Nevada and California are served by SWX.

A.

- Q. Please explain your DCF growth rate calculations for the sample companies used in your proxy.
- A. Schedule WAR-5 provides retention ratios, returns on book equity, internal growth rates, book values per share, numbers of shares outstanding, and the compounded share growth for each of the utilities included in the sample for the historical observation period 2000 to 2004. Schedule WAR-5 also includes Value Line's projected 2005, 2006, and 2008-10 values for the retention ratio, equity return, book value per share growth rate, and number of shares outstanding.

Q. Please describe how you used the information displayed in Schedule WAR-5 to estimate each comparable utility's dividend growth rate.

In explaining my analysis, I will use Southwest Water Company, (NASDAQ symbol SWWC) as an example. The first dividend growth component that I evaluated was the internal growth rate. I used the "b x r" formula (described on pages 9 and 10) to multiply SWWC's earned return on common equity by its earnings retention ratio for each year in the 2000 to 2004 observation period to derive the utility's annual internal growth rates. I used the mean average of this five-year period as a benchmark against which I compared the projected growth rate trends provided by Value Line. Because an investor is more likely to be influenced by recent growth trends, as opposed to historical averages, the five-year mean noted earlier was used only as a benchmark figure. As shown on

Schedule WAR-5, Page 1, SWWC had sustainable internal growth that averaged 5.44 percent over the course of the 2000 to 2004 observation period. During this time frame, growth ranged from 7.22 percent in 2000, to 7.51 percent in 2001 but then fell to 5.91 percent in 2002. Internal growth continued to decline from 5.81 percent in 2003 to 0.75 percent in the final year of the observation period. Value Line's analysts are optimistic for the future, projecting growth of 2.84% for 2005, followed by steady increases of 3.92% and 4.66% in the 2006 and 2008-10 time frames. While a 5.00% to 5.50 percent rate of growth would appear to be reasonable, given the aforementioned information on the historic behavior of CWT's internal growth rate, projections for 15 percent on earnings and 9.00 percent on dividends by Value Line, lead me to believe that a 6.00% rate of growth appears to be within the realm of possibility for SWWC.

- Q. Please continue with the external growth rate component portion of your analysis.
- A. Schedule WAR-5 demonstrates that the pattern of share's outstanding increased from 13.33 million to 19.40 during the 2000 to 2004 time frame. Despite this share growth of 9.84 percent during the observation period, Value Line is predicting that this level will increase to only 19.50 million in 2005. This trend is expected to continue during the 2006 and 2008-10 time frames. Value Line's analysts are forecasting an increase of 21.50 million shares outstanding by the end of 2010. After weighing these

1		projections, I believe that a 2.00% growth in shares is not unreasonable
2		for SWWC. My final dividend growth rate estimate for SWWC is 7.09
3		percent (6.00 percent internal + 1.09 percent external) and is shown on
4		Page 1 of Schedule WAR-4.
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6	Q.	What is your average dividend growth rate estimate using the DCF model
7		for the sample water utilities?
8	A.	Based on the DCF model, my average dividend growth rate estimate is
9		7.20 percent as displayed on page 1 of Schedule WAR-4.
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11	Q.	Did you use the same approach to determine an average dividend growth
12		rate for the proxy comprised of natural gas LDC's?
13	A.	Yes.
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15	Q.	What is your average dividend growth rate estimate using the DCF model
16		for the sample natural gas utilities?
17	A.	Based on the DCF model, my average dividend growth rate estimate is
18		4.57 percent, which is also displayed on page 1 of Schedule WAR-4.
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- Q. How does your average dividend growth rate estimates on water companies compare to the growth rate data published by Value Line and other analysts?
- Α. In the case of the water companies, my estimate falls between the projections of analysts at both Zacks Investment Research, Inc. ("Zacks") and Value Line. Schedule WAR-6 compares my sustainable growth estimates with the five-year projections of both Zacks (Attachment C) and Value Line. The 7.20 percent estimate that I have calculated is 120 basis points higher than the projected 5-year EPS average of 6.00 percent for Zacks (Zack's outlook for the water industry is 6.30 percent) and 47 basis points lower than the 7.67 percent projection by Value Line (which is an average of EPS, DPS and BVPS). My 7.20 percent estimate is 335 basis points higher than the Value Line 5-year compound historical average also displayed in Schedule WAR-6. This indicates that investors are expecting increased performance from water utilities in the future. On balance, I would say my 7.20 percent estimate is a good representation of the growth projections that are available to the investing public.
- Q. How does your average dividend growth rate estimates on natural gas LDC's compare to the growth rate data published by Value Line and other analysts?
- A. In regard to the natural gas LDC's, my estimate falls 96 basis points below the projections of analysts at Zacks (Zack's outlook for the natural gas

1 distribution industry is 9.20 percent) but only 3 basis points lower than 2 Value Line. However, as can also be seen on Schedule WAR-6, the 4.57 3 percent estimate that I have calculated is 22 basis points higher than the 4 average of the projected 5-year EPS means of 5.53 percent for Zacks, the 5 4.60 percent projection by Value Line (which is an average of EPS, DPS 6 and BVPS) and the five-year historical average of Value Line data on 7 EPS, DPS and BVPS. In fact, my 4.57 percent estimate is 99 basis points 8 higher than the Value Line 5-year compound historical average just noted. 9 As with water companies, this indicates that investors are expecting 10 increased performance from natural gas distribution companies in the 11 In the case of the LDC's I would say that my 4.57 percent 12 estimate, which is very close to Value Line's projections but somewhat 13 lower than Zack's estimates, is a fairly good representation of the growth 14 projections presented by securities analysts at this point in time.

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Q. How did you calculate the dividend yields displayed in Schedule WAR-3?

A. For both the water companies and the natural gas LDC's I used the estimated annual dividends, for the next twelve-month period, that appeared in Value Line's October 28, 2005 Ratings and Reports water services industry update and Value Line's December 16, 2005 Ratings and Reports natural gas (Distribution) update. I then divided those figures by the eight-week average price per share of the appropriate utility's common stock. The eight-week average price is based on the daily

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closing stock prices for each of the companies in my proxies for the period October 24, 2005 to December 16, 2005.

- Based on the results of your DCF analysis, what is your cost of equity capital estimate for the water and natural gas companies included in your sample?
- A. As shown in Schedule WAR-2, the cost of equity capital derived from my DCF analysis is 9.50 percent for the water companies and 9.35 percent for the natural gas LDC's.

## Capital Asset Pricing Model (CAPM) Method

- Q. Please explain the theory behind the capital asset pricing model ("CAPM") and why you decided to use it as an equity capital valuation method in this proceeding.
- A. CAPM is a mathematical tool that was developed during the early 1960's by William F. Sharpe<sup>11</sup>, the Timken Professor Emeritus of Finance at Stanford University, who shared the 1990 Nobel Prize in Economics for research that eventually resulted in the CAPM model. CAPM is used to analyze the relationships between rates of return on various assets and risk as measured by beta. 12 In this regard, CAPM can help an investor to

<sup>&</sup>lt;sup>11</sup> William F. Sharpe, "A Simplified Model of Portfolio Analysis," <u>Management Science</u>, Vol. 9, No. 2 (January 1963), pp. 277-93.

<sup>&</sup>lt;sup>12</sup> Beta is defined as an index of volatility, or risk, in the return of an asset relative to the return of a market portfolio of assets. It is a measure of systematic or non-diversifiable risk. The returns

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determine how much risk is associated with a given investment so that he or she can decide if that investment meets their individual preferences. Finance theory has always held that as the risk associated with a given investment increases, so should the expected rate of return on that investment and vice versa. According to CAPM theory, risk can be classified into two specific forms: nonsystematic or diversifiable risk, and systematic or non-diversifiable risk. While nonsystematic risk can be virtually eliminated through diversification (i.e. by including stocks of various companies in various industries in a portfolio of securities), systematic risk, on the other hand, cannot be eliminated by diversification. Thus, systematic risk is the only risk of importance to investors. Simply stated, the underlying theory behind CAPM states that the expected return on a given investment is the sum of a risk-free rate of return plus a market risk premium that is proportional to the systematic (non-diversifiable risk) associated with that investment. In mathematical terms, the formula is as follows:

 $k = r_f + [\beta(r_m - r_f)]$ 

where: k = cost of capital of a given security,

r<sub>f</sub> = risk-free rate of return,

ß = beta coefficient, a statistical measurement of a security's systematic risk,

on a stock with a beta of 1.0 will mirror the returns of the overall stock market. The returns on stocks with betas greater than 1.0 are more volatile or riskier than those of the overall stock market; and if a stock's beta is less than 1.0, its returns are less volatile or riskier than the overall stock market.

average market return (e.g. S&P 500), and  $r_{\mathsf{m}}$ 

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 $r_m - r_f =$ market risk premium.

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Q. What security did you use for a risk-free rate of return in your CAPM analysis?

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I used a six-week average on a 91-day Treasury Bill ("T-Bill") rate. 13 This A. resulted in a risk-free (r<sub>f</sub>) rate of return of 3.96 percent.

Why did you use the short-term T-Bill rate as opposed to the yield on an

intermediate 5-year Treasury note or a long-term 30-year Treasury bond?

Because a 91-day T-Bill presents the lowest possible total risk to an

investor. As citizens and investors, we would like to believe that U.S.

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Treasury securities (which are backed by the full faith and credit of the United States Government) pose no threat of default no matter what their maturity dates are. However, a comparison of various Treasury instruments will reveal that those with longer maturity dates do have slightly higher yields. Treasury yields are comprised of two separate components, 14 a true rate of interest (believed to be approximately 2.00)

percent) and an inflationary expectation. When the true rate of interest is

subtracted from the total treasury yield, all that remains is the inflationary

<sup>&</sup>lt;sup>13</sup> A six-week average was computed for the current rate using 91-day T-Bill quotes listed in Value Line's Selection and Opinion newsletter from November 11, 2005 to December 16, 2005.

<sup>&</sup>lt;sup>14</sup> As a general rule of thumb, there are three components that make up a given interest rate or rate of return on a security: the true rate of interest, an inflationary expectation, and a risk premium. The approximate risk premium of a given security can be determined by simply subtracting a 91-day T-Bill rate from the yield on the security.

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expectation. Because increased inflation represents a potential capital loss, or risk, to investors, a higher inflationary expectation by itself represents a degree of risk to an investor. Another way of looking at this is from an opportunity cost standpoint. When an investor locks up funds in long-term T-Bonds, compensation must be provided for future investment opportunities foregone. This is often described as maturity or interest rate risk and it can affect an investor adversely if market rates increase before the instrument matures (a rise in interest rates would decrease the value of the debt instrument). As discussed earlier in the DCF portion of my testimony, this compensation translates into higher rates of returns to the investor. Since a 91-day T-Bill presents the lowest possible total risk to an investor, it more closely meets the definition of a risk-free rate of return and is the more appropriate instrument to use in a CAPM analysis.

- Q. How did you calculate the market risk premium used in your CAPM analysis?

A.

I used both a geometric and an arithmetic mean of the historical returns on the S&P 500 index from 1926 to 2004 as the proxy for the market rate of return  $(r_m)$ . The risk premium  $(r_m - r_f)$  that results by using the geometric mean calculation for  $r_m$  is equal to 6.44 percent (10.40% - 3.96% = 6.44%). The risk premium that results by using the arithmetic mean calculation for  $r_m$  is 8.44 percent (12.40% - 3.96% = 8.44%).

- Q. How did you select the beta coefficients that were used in your CAPM analysis?
  - A. The beta coefficients (ß), for the individual utilities used in both my proxies, were calculated by Value Line and were current as of October 28, 2005 for the water companies and December 16, 2005 for the natural gas LDC's. Value Line calculates its betas by using a regression analysis between weekly percentage changes in the market price of the security being analyzed and weekly percentage changes in the NYSE Composite Index over a five-year period. The betas are then adjusted by Value Line for their long-term tendency to converge toward 1.00. The beta coefficients for the service providers included in my water company sample ranged from 0.65 to 0.80 with an average beta of 0.73. The beta coefficients for the LDC's included in my natural gas sample ranged from 0.65 to 0.85 with an average beta of 0.78.

Q. What are the results of your CAPM analysis?

A. As shown on pages 1 and 2 of Schedule WAR-7, my CAPM calculation using a geometric mean for r<sub>m</sub> results in an average expected return of 8.63 percent for the water companies and 8.99 percent for the natural gas LDC's. My calculation using the arithmetic mean results in an average expected return of 10.08 percent for the water companies and 10.55 percent for the natural gas LDC's. Although there is some debate on this point, I believe that the consensus among financial analysts appears to be

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that the arithmetic mean is the better of the two averages. For this reason, I believe that the 10.08 percent estimate for water and the 10.55 percent figure for gas are the better checks on the results of my respective DCF analyses for water and gas.

- Q. Please summarize the results derived under each of the methodologies presented in your testimony.
- A. The following is a summary of the cost of equity capital derived under each methodology used:

<u>METHOD</u>	<u>RESULTS</u>
DCF (Water Sample)	9.50%
DCF (Natural Gas Sample)	9.35%
CAPM (Water Sample)	8.63% - 10.08%
CAPM (Natural Gas)	8.99% – 10.55%

Based on these results, my best estimate of an appropriate range for the cost of equity is from 8.63 percent to 10.55 percent. My final recommendation is a 10.00 percent return for Arizona-American's cost of equity capital.

- Q How did you arrive at your recommended 10.00 percent cost of common equity?
- A. My recommended 10.00 percent cost of common equity is the 9.50 percent result of my DCF analysis for water companies plus an additional

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50 basis points for the increased financial risk faced by Arizona-American as a result of the Company's debt heavy capital structure.

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Q. Why have you made a 50 basis point upward adjustment to the results of your DCF analysis?

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A. The 50 basis point adjustment takes into consideration the higher level of debt in the Company's capital structure. My recommended capital structure for Arizona-American is comprised of approximately 63.0 percent common equity capital and 37.0 percent debt. This capital structure has a larger percentage of debt than the capital structures of the four water companies and eight natural gas LDC's that I included in my DCF and CAPM proxies. As can be seen in Schedule WAR-9, the utilities included in my samples had capital structures of approximately of 50 percent common equity and 50 percent debt, for water providers, and roughly 47 percent common equity and 53 percent debt for natural gas LDC's. Because Arizona-American's capital structure has a higher percentage of debt, the Company faces a higher level of financial risk (i.e. the risk of not being able to meet debt service obligations) than the companies in my proxies. For this reason a higher cost of equity is warranted and I have decided to make such an adjustment. In this case, the 10.00 percent return on common equity that I am recommending falls slightly below a mean average of the higher 9.50 percent DCF result that I obtained using

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a proxy of water utilities and the higher 10.55 percent CAPM result that I obtained from my proxy of riskier LDC's.

Typically yes. With a few exceptions I have generally used the results

obtained from the DCF model as a basis for my final recommended cost of

decision to add another 50 basis points to my 9.50 percent DCF estimate

(for water providers) is consistent with the manner in which I arrived at my

9.61 percent cost of common equity for Arizona-American in the

Company's most recent rate case proceeding before the Commission. In

that case, the ACC eventually adopted ACC Staff's cost of common equity

recommendation of 9.00 percent, which also included a 50 basis point

Please explain why it is necessary to consider the current economic

environment when performing a cost of equity capital analysis for a

adder for the Company's higher level of debt<sup>15</sup>.

equity capital while using the CAPM as a check on DCF results.

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Q. Is this the method that you have typically used to determine the cost of equity capital in prior rate case proceedings?

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# **Current Economic Environment**

regulated utility.

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- A. Consideration of the economic environment is necessary because trends in interest rates, present and projected levels of inflation, and the overall

<sup>&</sup>lt;sup>15</sup> Decision No. 67093, dated June 30, 2004

state of the U.S. economy determine the rates of return that investors earn on their invested funds. Each of these factors represent potential risks that must be weighed when estimating the cost of equity capital for a regulated utility and are, most often, the same factors considered by individuals who are investing in non-regulated entities also.

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Q. Please discuss your analysis of the current economic environment.

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occurred since 1990. Schedule WAR-8 displays various economic indicators and other data that I will refer to during this portion of my

My analysis includes a brief review of the economic events that have

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In 1991, as measured by the most recently revised annual change in

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growth of negative 0.20 percent. This decline in GDP marked the

gross domestic product ("GDP"), the U.S. Economy experienced a rate of

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beginning of a mild recession that ended sometime before the end of the

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first half of 1992. Reacting to this situation, the Federal Reserve Board

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("Federal Reserve" or "Fed"), chaired by noted economist Alan Greenspan, lowered its benchmark federal funds rate 16 in an effort to

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further loosen monetary constraints - an action that resulted in lower

interest rates.

testimony.

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<sup>&</sup>lt;sup>16</sup> The interest rate charged by banks with excess reserves at a Federal Reserve district bank to banks needing overnight loans to meet reserve requirements. The federal funds rate is the most sensitive indicator of the direction of interest rates, since it is set daily by the market, unlike the prime rate and the discount rate, which are periodically changed by banks and by the Federal Reserve Board, respectively.

During this same period, the nation's major money center banks followed the Federal Reserve's lead and began lowering their interest rates as well. By the end of the fourth quarter of 1993, the prime rate (the rate charged by banks to their best customers) had dropped to 6.00 percent from a 1990 level of 10.01 percent. In addition, the Federal Reserve's discount rate on loans to its member banks had fallen to 3.00 percent and short-term interest rates had declined to levels that had not been seen since 1972.

Although GDP increased in 1992 and 1993, the Federal Reserve took steps to increase interest rates beginning in February of 1994, in order to keep inflation under control. By the end of 1995, the Federal discount rate had risen to 5.21 percent. Once again, the banking community followed the Federal Reserve's moves. The Fed's strategy, during this period, was to engineer a "soft landing." That is to say that the Federal Reserve wanted to foster a situation in which economic growth would be stabilized without incurring either a prolonged recession or runaway inflation.

Q. Did the Federal Reserve achieve its goals during this period?

A. The Fed's strategy of decreasing interest rates to stimulate the economy worked. The annual change in GDP began an upward trend in 1992. A change of 4.50 percent and 4.20 percent were recorded at the end of 1997 and 1998 respectively. Based on daily reports that were presented in the mainstream print and broadcast media during most of 1999, there

appeared to be little doubt among both economists and the public at large that the U.S. was experiencing a period of robust economic growth highlighted by low rates of unemployment and inflation. Investors, who believed that technology stocks and Internet company start-ups (with little or no history of earnings) had high growth potential, purchased these types of issues with enthusiasm. These types of investors, who exhibited what Chairman Greenspan described as "irrational exuberance," pushed stock prices and market indexes to all time highs from 1997 to 2000.

Q. What has been the state of the economy over the last five years?

A. The U.S. economy entered into a recession around the end of the first quarter of 2001. The bullish trend, which had characterized the last half of the 1990's, had already run its course sometime during the third quarter of 2000. Economic data released since the beginning of 2001 had already been disappointing during the months preceding the September 11, 2001 terrorist attacks on the World Trade Center and the Pentagon. Slower growth figures, rising layoffs in the high technology manufacturing sector, and falling equity prices (due to lower earnings expectations) prompted the Fed to begin cutting interest rates as it had done in the early 1990's. The now infamous terrorist attacks on New York City and Washington D.C. marked a defining point in this economic slump and prompted the Federal Reserve to continue its rate cutting actions through December 2001. Prior to the 9/11 attacks, commentators, reporting in both the

mainstream financial press and various economic publications including Value Line, believed that the Federal Reserve Chairman was cutting rates in the hope of avoiding the recession that the U.S. is still in the process of recovering from.

Despite several intervals during 2002 and 2003 in which the Federal Open Market Committee ("FOMC") decided not to change interest rates, moves which indicated that the worst may be over and that the current recession might have bottomed out during the last quarter of 2001, a lackluster economy persisted. The continuing economic malaise and even fears of possible deflation prompted the FOMC to make a thirteenth rate cut on June 25, 2003. The quarter point cut reduced the federal funds rate to 1.00 percent, the lowest level in 45 years.

Even though some signs of economic strength, that were mainly attributed to consumer spending, began to crop up during the latter part of 2002 and into 2003, Chairman Greenspan appeared to be concerned with sharp declines in capital spending in the business sector.

During the latter part of 2003, the FOMC went on record as saying that it intended to leave interest rates low "for a considerable period." After its two-day meeting that ended on January 28, 2004, the FOMC stated "that with inflation 'quite low' and plenty of excess capacity in the economy, policy-makers 'can be patient in removing its policy accommodation."

<sup>&</sup>lt;sup>17</sup> Wolk, Martin, "Fed leaves short-term rates unchanged," <u>MSNBC</u>, January 28, 2004.

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- Q. What actions has the Federal Reserve taken in terms of interest rates since the beginning of 2001?
  - As noted earlier, from January 2001 to June 2003 the Federal Reserve cut interest rates a total of thirteen times. During this period, the federal funds rate fell from 6.50 percent to 1.00 percent. The FOMC reversed this trend on June 29, 2004 and raised the federal funds rate 25 basis points to 1.25 percent. Between June 29, 2004 and December 13, 2005, the FOMC has raised the federal funds rate twelve more times to its current level of 4.25 percent (the next scheduled meeting of the FOMC will be on January 31. 2006). As expected, banks have followed the Fed's lead and have boosted the prime rate to its current level of 7.25 percent. According to an article that appeared in the December 2, 2004 edition of The Wall Street Journal, the FOMC's decision to begin raising rates was viewed as a move to increase rates from emergency lows in order to avoid creating an inflation problem in the future as opposed to slowing down the strengthening economy<sup>18</sup>. In other words, the Fed was trying to head off inflation *before* it became a problem.

Since it began increasing the federal funds rate in June 2004, the Federal Reserve had stated that it would increase rates at a "measured" pace.

Many analysts and economists interpreted this language to mean that Chairman Greenspan would be cautious in increasing interest rates too

<sup>&</sup>lt;sup>18</sup> McKinnon, John D. and Greg IP, "Fed Raises Rates by a Quarter Point," <u>The Wall Street Journal</u>, September 22, 2004.

quickly in order to avoid what is considered to be one of the Fed's few blunders during Greenspan's tenure – a series of increases in 1994 that caught the financial markets by surprise after a long period of low rates. The rapid rise in rates resulted in financial turmoil, which contributed to the bankruptcy of Orange County, California and the Mexican peso crisis<sup>19</sup>.

- Q. Putting this all into perspective, how have the Fed's actions over the past five years affected benchmark rates?
- A. Virtually all of the benchmark rates have fallen to levels not seen in over forty-five years. The Fed's actions have had the overall effect of reducing the cost of many types of business and consumer loans. Despite the recent increases in the federal funds rate, the federal discount rate (the rate charged to member banks) has fallen from 5.73 percent in 2000, to its present level of 5.25 percent. Despite recent increases by the FOMC, rates are still at historically low levels.
- Q. What has been the trend in other leading interest rates over the last year?A. As of December 20, 2005, all of the leading interest rates have edged up.

The prime rate has increased from 5.00 percent a year ago to a current level of 7.25 percent. The benchmark federal funds rate, just discussed, has increased from 2.00 percent, in December 2004, to its current level of

4.25 percent (the result of the thirteen quarter point increases noted

<sup>&</sup>lt;sup>19</sup> Associated Press (AP), "Fed begins debating interest rates" <u>USA Today</u>, June 29, 2004.

earlier). The yields on all maturities of U.S. Treasury instruments, with the exception of the 30-year and 30-year zero coupon bonds, which have fallen 16, and 31 basis points respectively since December 2004, have increased over the past year. This unusual situation, in which long-term rates are falling as short-term rates are rising, is creating a flat yield curve that has been described by Chairman Greenspan as a "conundrum." The 91-day T-bill rate, used in my CAPM analysis, has increased from 2.23 percent, in December 2004, to 3.93 percent today. The 1-Year Treasury Constant Maturity rate has also increased from 2.59 percent over the past year to 4.35 percent today. Again, these levels are still low when they are compared with yields during the early nineties displayed on Schedule WAR-8.

- Q. How have economists and members of the investment community viewed the Fed's rate actions since June 2004?
- A. The change in the Fed's language from "considerable period" to "patient" to "measured," that have been noted through the course of my testimony, has pretty much summed up the Fed's course of action during the economic recovery that is still in progress. In his October 2004 column for Wells Capital Management's ("Wells") Monthly Market Outlook publication, Senior Economist Gary E. Schlossberg viewed the Fed's credit tightening action as a trend that would likely continue barring an unraveling of the

<sup>&</sup>lt;sup>20</sup> Wolk, Martin, "Greenspan wrestling with rate 'conundrum'," <u>MSNBC</u>, June 8, 2005.

economic recovery, a major disruption in the financial markets or a renewed threat of declining prices. Mr. Schlossberg believed then that the Fed was determined to engineer a fundamental shift from its past policy of "aggressive accommodation" to what he considered to be a more "neutral" policy stance (determined by both the rate of inflation and an additional "premium" of possibly 1.00 percent to 1.50 percent) via a series of rapid fire quarter-point (i.e. 25 basis points) increases that will result in a federal funds rate of 4.00 percent to 4.50 percent by the end of 2005. Schlossberg's expectation of future incremental increases in the federal funds rate was also shared at the time by Mickey Levy, Chief Economist for Bank of America, and by Value Line analysts. In the October 1, 2004 edition of Value Line's "Selection & Opinion" publication, Value Line's analysts stated that they believed that the Fed was following a prudent course. In their opinion the Fed's interest rate cutting helped to avoid a more serious recession and the Fed's present course of action will help to insure that the current upturn in the economy is sustained while keeping inflation low and under control at the same time.

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- Q. What is the current outlook for interest rates, inflation, and the economy?
- A. The views expressed by Messrs Levy and Schlossberg during the last quarter of 2004 have only been off target by about three months. A recent

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article<sup>21</sup> in the January 4, 2006 edition of The Wall Street Journal reported that, according to the minutes of the FOMC's December 2005 meeting, members of the Fed's rate setting board are less worried about inflation and may only raise interest rates one or two more times in the coming months. If the Fed continues its trend of raising rates in 25 basis point increments, the federal funds rate should level off at either 4.50 percent or 4.75 percent within the first guarter of 2006.

According to analysts and economists at both Value Line and Wells, the overall outlook for economic growth, and the current low interest rate environment, appears to be good despite a moderate pace of GDP growth and higher oil prices. In their most recent Selection & Opinion outlook published on Friday, December 30, 2005, Value Line analysts stated the following:

"Now as we look to a new year, we find that the economic indicators are again positive, with the nation's gross domestic product likely to increase by around 3.5%. Oil prices, which briefly topped \$70 a barrel before settling in at a slightly less alarming \$55-\$65, will probably stay fairly close to their more recent range, absent any global or domestic shocks. Such relative stability is likely to keep inflationary excesses at bay and encourage the Fed to call a halt to its monetary tightening efforts rather early in the new year."

The following quote<sup>22</sup> by Wells' Chief Investment Strategist, James W. Paulsen, Ph.D., had this to say:

"While we believe that the stock market will be dictated by the pace of real economic growth this year, the bond market and Fed actions will depend on the direction of core consumer price inflation. Until now, Fed policy has been aimed at reversing the

<sup>&</sup>lt;sup>21</sup> Ip, Greg, "Fed Suggests It's Close to Ending Run of Interest Rate Rises," <u>The Wall Street</u> <u>Journal</u>, January 4, 2006.

22 Wells Capital Management's <u>Economic and Market Perspective</u>, January 2006, Page 1.

emergency discount and returning short-term interest rates back to a neutral range. Future policy actions will now depend primarily on inflation evidence. Throughout this recovery the bond market has consistently shown a newfound attitude – 'strong real economic growth doesn't scare me, only evidence of actual core inflation will get me to raise yields'."

- Q. How has the water industry segment of the U.S. economy fared recently?
- A. In his October 28, 2005 update on the water services industry, Value Line analyst Andre Costanza stated that after a rebound in 2004, the industry had reverted back to having trouble meeting earnings expectations as a result of weather conditions and infrastructure costs. Mr. Costanza also went on to say that the companies included in my proxy had posted "a solid earnings recovery" during 2004. Although none of the water utilities followed by Value Line stand out for capital gains potential, they do offer above average dividend yields and should be attractive to income oriented investors according to Mr. Costanza (Attachment A).

Q. What has been the trend in Value Line's return on common equity projections for the water utility industry over the last six years?

A.

have been making downward projections on water industry book returns

on common equity ("ROE"). The following is a summary of Value Line's

water utility industry composite statistics on ROE, over the aforementioned

Up until this year, and with the exception of 2003, Value Line's analysts

period, which are exhibited in Attachment D of my testimony:

1	Value Line Published Projected Returns 2000 – 2005						
2		<u>2000</u>	<u>2001</u>	<u>2003-05</u>			
3	Value Line ROE Projection – Nov. 3, 2000	11.0%	11.0%	12.0%			
4		<u>2001</u>	<u>2002</u>	2004-06			
5	Value Line ROE Projection – Nov. 2, 2001	10.5%	11.0%	11.5%			
6		<u>2002</u>	<u>2003</u>	<u>2005-07</u>			
7	Value Line ROE Projection – Nov. 1, 2002	10.0%	10.5%	11.5%			
8		2003	<u>2004</u>	<u>2006-08</u>			
9	Value Line ROE Projection – Oct. 31, 2003	10.0%	11.0%	12.0%			
10		2004	<u>2005</u>	<u>2007-09</u>			
11	Value Line ROE Projection – Oct. 29, 2004	9.5%	9.5%	10.0%			
12		2005	<u>2006</u>	<u>2008-10</u>			
13	Value Line ROE Projection – Oct. 28, 2005	11.0%	11.0%	11.5%			
14							
15	Value Line Published Actual Returns 2001 - 2	<u> 2005</u>					
16	2001	<u>2002</u>	<u>2003</u>	<u>2004</u>			
17	Value Line historic Returns – Oct. 28, 2005 10.7%	11.2%	8.8%	10.7%			
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19	In addition to the downward trend in projection	s that	l just a	addressed	l, the		
20	above summary also illustrates the fact that '	Value	Line's	analysts	have		
21	been somewhat more optimistic in their for	ward-lo	oking	one-year	and		
22	long-term projections. As can be seen below,	Value	Line's	analysts	have		
23	been somewhat high in their coming year proje	ctions	on RO	E.			

24 25 26 27	<u>Year</u>	Value Line <u>Projected</u>	Actual Book Return on ROE	<u>Difference</u>
27	2001	11.0%	10.7%	-30 Basis Points
28	2002	11.0%	11.2%	20 Basis Points
28 29 30	2003	10.5%	8.8%	-170 Basis Points
30	2004	11.0%	10.7%	-30 Basis Points

As can be seen above, with the exception of the 2002 operating period, Value Line's analyst's projections on water utility ROE's from one year out were 30 to 170 basis points higher than the actual returns booked by the water utilities (this is why I only rely on Value Line projections as guides in developing my growth estimates for the DCF model).

Q. Please summarize how the economic data just presented relates to Arizona-American.

A. The current benign rate of inflation translates into stable and even possibly declining prices for goods and services, which in turn means that Arizona-American can expect its present operating expenses to either remain stable or possibly decline in the coming years. Lower interest rates would also benefit Arizona-American in regard to any short or long-term borrowing needs that the Company may have. Lower interest rates, would further help to accelerate growth in new construction projects and home developments (which have been on an upward trend according to information presented by Value Line) in the Company's service territories, and may result in new revenue streams to Arizona-American.

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- Q. After weighing the economic information that you've just discussed, do you believe that the 10.00 percent cost of equity capital that you have estimated is reasonable for Arizona-American?
  - I believe that my recommended 10.00 percent cost of equity will provide Arizona-American with a reasonable rate of return on the Company's invested capital when economic data on interest rates (that are still low by historical standards), continued growth in new housing construction (attributed to historically low interest rates), and the low and stable outlook for inflation are all taken into consideration. As I noted earlier, the <a href="Hope">Hope</a> decision determined that a utility is entitled to earn a rate of return that is commensurate with the returns it would make on other investments with comparable risk. I believe that my DCF analysis has produced such a return. The results that I have obtained are consistent with Value Line's view that the water utility stocks included in my proxy "offer an above average dividend yield."

### 1 **CAPITAL STRUCTURE** 2 Q. Have you reviewed Arizona-American's testimony regarding the 3 Company's proposed capital structure? 4 Α. Yes, I have. 5 6 Q. Please describe the Company's proposed capital structure. 7 A. The Company is proposing a capital structure comprised of approximately 8 63.0 percent common equity and 37.0 percent debt. 9 10 Q. What capital structure are you proposing for Arizona-American? 11 Α. I have adopted the Company-proposed capital structure. 12 13 Q. Is Arizona-American's capital structure in line with industry averages? 14 A. No. As discussed earlier, Arizona-American's capital structure is heavier 15 in debt than the capital structures of the other water companies included in 16 my cost of capital analysis (Schedule WAR-9). The capital structures for 17 those utilities averaged 50.1 percent for debt and 49.9 percent for equity 18 (49.8 percent common equity + 0.1 percent preferred equity). 19 20 Q. In terms of risk, how does Arizona-American's capital structure compare to 21 the water utilities in your sample? 22 A. The water utilities in my sample would be considered as having a lower

level of financial risk (i.e. the risk associated with debt repayment)

1 because of their lower levels of debt. The additional financial risk due to 2 debt leverage is embedded in the cost of equities derived for those 3 companies through the DCF analysis. Thus, the cost of equity derived in 4 my DCF analysis is applicable to companies that are not as leveraged 5 and, theoretically speaking, not as risky than a utility with a level of debt 6 similar to Arizona-American's. In the case of a publicly traded company, 7 such as those included in my proxy, a company with Arizona-American's 8 level of debt would be perceived as having a higher level of financial risk 9 and would therefore also have a higher expected return on common 10 equity.

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Q. Have you made an adjustment to your DCF estimate based on this perception of higher financial risk?

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A. Yes. As I explained earlier, I have made a 50 basis point adjustment to my recommended cost of equity based on the results of my DCF and CAPM analyses.

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Q. Have you reviewed the Arizona-American's testimony on the Company-proposed cost of debt?

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A. Yes, I have reviewed the testimony prepared by Mr. David P. Stephenson, the Company's Rate Regulation Manager for the Western Region of American Water Works Company.

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- Q. Briefly explain how Arizona-American calculated the Company-proposed cost of debt.
- A. The Company-proposed cost of debt is the weighted cost of Arizona-American's various debt instruments that were issued to finance assets that were in place during the Test Year. In arriving at the Companyproposed weighted cost of these instruments, Mr. Stephenson made an upward adjustment to the cost of two issues of long-term promissory notes that will be refinanced in November of 2006 when they are scheduled to mature. Mr. Stephenson's adjustment resulted in a 70 basis point increase, which puts the cost of the notes at 5.71 percent.
- Q. Do you agree with Mr. Stephenson's adjustment?
- Α. Yes. Mr. Stephenson stated in his testimony that the Company is rated A by Standard and Poor's and Baa 1 by Moody's. At the time that he wrote his testimony, A and Baa rated utility bonds had an average yield of 5.74 percent. As of January 6, 2006, A and Baa rated utility bonds had an average yield of 5.72 percent which is just slightly higher than Mr. Stephenson's adjusted cost. Given the current outlook on the near-term direction of interest rates, I believe that Mr. Stephenson's adjustment is reasonable.
- Q. Have you accepted the Company's 5.42 percent cost of long-term debt?
- Yes I have.

- Q. How does your recommended cost of equity capital compare with the cost
   of equity capital proposed by the Company?
   A. The 12.00 percent cost of equity capital proposed by the Company's cost
  - of capital witness is 200 basis points higher than the 10.00 percent cost of equity capital that I am recommending.
  - Q. How does the Company's proposed weighted cost of capital compare with your recommendation?
  - A. The Company has proposed a weighted cost of capital of 7.84 percent.

    This composite figure is the result of a weighted average of Arizona
    American's proposed 5.42 percent cost of debt and a 12.00 percent cost of equity capital. The Company-proposed 7.84 percent weighted cost of capital is 74 basis points higher than the 7.10 percent weighted cost that I am recommending.

# **COMMENTS ON ARIZONA-AMERICAN'S COST OF EQUITY CAPITAL**

#### **TESTIMONY**

- Q. Who estimated the Company-proposed cost of equity capital?
- A. Dr. A. Lawrence Kolbe and Dr. Thomas M. Vilbert (who I noted earlier in my testimony) estimated the Company-proposed cost of equity capital for PV Water. Both witnesses are principals of the Brattle Group, a consulting firm located in Cambridge, Massachusetts.

- Q. Briefly describe Dr. Kolbe's testimony.
- A. Dr. Kolbe's testimony presents a final cost of common equity estimate of 12 percent to 13 percent for Paradise Valley based on the results of the cost of equity analysis performed by Dr. Vilbert and on his own work on how the cost of common equity is impacted by the level of debt that a utility has.
- Q. What methods did Dr. Vilbert use to arrive at his cost of common equity?
- A. Dr. Vilbert used two methods to estimate a cost of equity capital. The DCF method and what he refers to in his testimony as a risk positioning method, which utilizes both the CAPM and empirical CAPM ("ECAPM") models. Dr. Vilbert places more emphases on the results of his risk positioning analysis as opposed to the DCF. In making his final cost of equity estimates for each methodology that he uses, Dr. Vilbert makes the upward adjustments advocated by Dr. Kolbe in order to arrive at an after tax weighted average cost of capital ("ATWACC") for PV Water.
- Q. Were there any differences in the way that you conducted your DCF analysis and the way that Dr. Vilbert conducted his?
- A. Yes, Dr. Vilbert conducted two separate DCF analyses. His first DCF analysis is a one-step constant growth model, similar to the one that I used, which uses a proxy of eight water providers. Dr. Vilbert's second

DCF analysis is a variation on the two-step or multi-stage growth DCF model.

- Q. Why didn't you conduct a multi-stage DCF analysis like the one conducted by Dr. Vilbert?
- A. Primarily because the growth rate component that I estimated for my single-stage model already takes into consideration both the near-term and long-term growth rate projections that Dr. Vilbert averaged in his multi-stage model. This being the case, I saw no need to conduct a separate DCF analysis. As I pointed out earlier in my testimony, the method that I used also takes into consideration analysts' tendency to make overly optimistic growth estimates. This tendency, referred to as optimism bias by Dr. Vilbert, is addressed in Appendix C of his testimony and, according to Dr. Vilbert, is eliminated by the use of a long-term growth rate estimate for gross domestic product ("GDP") in his multi-stage model.

Q. What is the difference between your DCF results and Dr. Vilbert's first DCF result?

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uses an average of four sample water companies, is 100 to 130 basis points lower than the averages of 10.50 to 10.80 percent derived in Dr.

The 9.50 percent cost of common equity derived in my DCF analysis, that

Vilbert's one-step DCF analysis, which is an average of eight sample

water companies (as exhibited in column 3 of Table No. MJV-7 of Dr. Vilbert's testimony). This comparison does not include a number of other factors (i.e. debt and equity ratios and income tax rates) which Dr. Vilbert employs to reduce the aforementioned averages to a range of 8.10 to 8.20 percent respectively for the ATWACC displayed on page 50 of his testimony.

Q. Please explain why your 9.50 percent DCF result is 100 to 130 basis points lower than the 10.50 to 10.80 percent range produced in Dr. Vilbert's one-step DCF model.

A. One reason is the dividend yield calculation, which can be attributed to observation period timing. Over the past two years there have been no substantial changes in dividend payouts but stock prices have increased. Dr. Vilbert's higher dividend yields are attributed to the fact that his average stock prices, (P<sub>0</sub>) of the DCF formula (k = (D<sub>1</sub> ÷ P<sub>0</sub>) + g), were taken over an observation period (which appears to have been sometime in April of 2005) when the water companies in his sample were trading at lower prices than they were during the eight-week observation period (October 24, 2005 to December 16, 2005) that I based my calculation on. The difference between the average closing stock prices used in my analysis and Dr. Vilbert's analysis are as follows:

	<u>Rigsby</u>	<u>Vilbert</u>	<u>Difference</u>
AWR	\$31.33	\$25.60	\$5.73
CWT	\$36.29	\$33.83	\$2.46
SWWC	\$13.87	\$10.97	\$2.90
WTR	\$32.68	\$24.50	\$8.18

In addition, the differences in Dr. Vilbert's annualized dividends, for the four water companies used in my sample, ranged from \$0.00 to \$0.05. Concentrating strictly on the four water companies used in my sample, his analysis produced an average annualized dividend yield of 2.68 percent versus the 2.30 percent, which I calculated (Schedule WAR-3).

In the growth portion (g) of his first DCF analysis, Dr. Vilbert relied on IBES and Value Line analysts growth rate estimates and then added a quarterly growth rate to that figure to arrive at an average growth rate of 9.60 percent, for the four water companies in my sample versus my 7.20 percent dividend growth rate (Schedule WAR-4). The apples to apples comparison of the DCF results for the four common companies (i.e. AWR, CWT, SWWC and WTR) used in our sample would be 12.28 percent for Dr. Vilbert versus my 9.50 percent (before any other adjustments made by Dr. Vilbert).

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testimony.

Q. What is the difference between your DCF result and Dr. Vilbert's two-step

The 9.50 percent cost of common equity derived in my DCF analysis (that

- or multi-stage growth model DCF result?
- uses four sample water companies) is 80 to 50 basis points higher than the 8.70 to 9.0 percent cost of common equity derived in Dr. Vilbert's two-step DCF analysis that used long-term GDP growth estimates (which he believes helps to eliminate optimism bias) and is an average of eight sample water companies (as also exhibited in column 3 of Table No. MJV-7 of Dr. Vilbert's testimony). Once again, this comparison does not include the other factors that I noted earlier which Dr. Vilbert employs to reduce the aforementioned averages to a range of 6.90 to 7.00 percent

Q. What were the results of Dr. Vilbert's DCF analysis using a sample of natural gas providers?

respectively for the ATWACC figure displayed on page 51 of his

A. Dr. Vilbert's DCF analyses (which used the same eight LDC's that I used) produced results that ranged from 9.6 for the single stage model to 9.6 to 9.4 for the multi-stage model (once again this is before any further adjustments). His DCF results (for both models) ranged from 5 to 25 basis points higher than the results that I obtained from the single stage model.

- Q. Please describe the results of Dr. Vilbert's risk positioning analysis.
- A. For Water providers, Dr. Vilbert's results ranged from 8.00 percent to 8.90 percent using unadjusted Value Line betas and a long-term rate of 5.00 percent in the Sharpe-Litner version of the CAPM and in two separate versions of the ECAPM. Dr. Vilbert's short-term results for water providers, using a risk free rate of 3.00 percent and three different versions of the ECAPM, ranged from 6.70 to 8.60 percent. Dr. Vilbert's ATWACC for PV Water ranged from 11.70 percent to 13.40 percent using the long-term 5.00 percent rate and 9.30 percent to 12.70 percent using the short-term 3.00 percent rate.

For natural gas LDC's, Dr. Vilbert's results ranged from 8.50 percent to 9.30 percent using unadjusted Value Line betas and a long-term rate of 5.00 percent in the Sharpe-Litner version of the CAPM and in two separate versions of the ECAPM. Dr. Vilbert's short-term results for LDC's, using a risk free rate of 3.00 percent and three different versions of ECAPM, ranged from 7.50 to 8.90 percent. After making his upward adjustments, Dr. Vilbert's ATWACC for PV Water ranged from 11.30 percent to 12.40 percent using the long-term 5.00 percent rate and 10.10 percent to 12.00 percent using the short-term 3.00 percent rate.

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Q. Please compare the results of your CAPM analyses based on a sample of water providers with the results of Dr. Vilbert's risk positioning analysis

The 8.63 percent result of my CAPM analysis using a geometric mean

falls between Dr. Vilbert's unadjusted 8.00 percent to 8.90 percent long-

- that looked at water providers.
- term results and is 3 to 190 basis points higher than the results of his short-term results. The 10.08 percent result of my CAPM analysis using an arithmetic mean is 118 to 208 basis points higher than the long-term unadjusted results estimated by Dr. Vilbert and is 148 to 338 basis points higher than Dr. Vilbert's short-term estimates. Dr. Vilbert's long-term ATWACC estimates are 307 to 477 basis points higher than my 8.63
  - higher than my 10.80 percent estimate using an arithmetic mean. His short-term ATWACC results are 67 to 407 basis points higher than my 8.63 percent estimate using a geometric mean. My 10.80 percent

percent estimate using a geometric mean and 90 to 260 basis points

- estimate using an arithmetic mean falls between Dr. Vilbert's short-term
- ATWACC estimates of 9.30 to 12.70 percent.
- Q. Please compare the results of your CAPM analyses based on a sample of natural gas LDC's with the results of Dr. Vilbert's risk positioning analysis
  - that looked at LDC's.
- A. The 8.99 percent result of my CAPM analysis using a geometric mean
  - falls between Dr. Vilbert's unadjusted 8.50 percent to 9.30 percent long-

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term results and also falls between his short-term results ranging from 7.50 to 8.90 percent. The 10.55 percent result of my CAPM analysis using an arithmetic mean is 125 to 205 basis points higher than the unadjusted long-term results estimated by Dr. Vilbert and is 165 to 305 basis points higher than Dr. Vilbert's long-term estimates. Dr. Vilbert's long-term ATWACC estimates are 231 to 341 basis points higher than my 8.99 percent estimate using a geometric mean and 75 to 185 basis points higher than my 10.55 percent estimate using an arithmetic mean. His short-term ATWACC results are 111 to 301 basis points higher than my 8.99 percent estimate using a geometric mean. My 10.55 percent estimate using an arithmetic mean. The short-term ATWACC results are 111 to 301 basis points higher than my 10.55 percent estimate using an arithmetic mean. My 10.55 percent estimate using an arithmetic mean falls between Dr. Vilbert's short-term ATWACC estimates of 10.10 to 12.00 percent.

- Q. What financial instruments did Dr. Vilbert use as proxies for his long-term and short-term risk free rates of return?
- A. Dr. Vilbert did not use any specific instruments such as the 91-day

  Treasury bill that I used as a proxy. Instead he used estimates of 5

  percent and 3 percent for his respective long-term and short-term proxies.

- Q. Where do Dr. Vilbert's 3 and 5 percent rates stand in current interest rate environment?
- A. Dr. Vilbert's 3 and 5 percent estimates are actually higher and lower than the yields on actual U.S. Treasury instruments at this point in time. As can

1 be seen in Attachment E of my testimony, the current yield curve for 2 Treasury securities is virtually flat as a result of falling long-term rates and 3 rising short-term yields. As of December 29, 2005, the spread between 4 the three-month yield of 3.99 percent and the 30-year yield of 4.51 percent 5 was only 52 basis points. Given these facts, I believe my 3.96 percent T-6 Bill rate is probably producing a slightly better estimate. 8

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Q. Did Dr. Vilbert use the same Value Line betas that you used in your analysis?

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A. No. As I noted earlier Dr. Vilbert used lower unadjusted betas in his CAPM and ECAPM models than the higher adjusted betas that I used. The use of adjusted betas in the ECAPM model typically produces unreliable results.

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Q. Please compare the market risk premium used in your CAPM analysis with the market risk premium used by Dr. Vilbert.

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Α. I used a market risk premium of 6.44 percent in my model using a geometric mean and a market risk premium of 8.44 in my model using an arithmetic mean. Dr. Vilbert used a market risk premium of 8.00 percent in his short-term analyses and a market risk premium of 6.50 percent in his long-term analyses.

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- Q. How did Arizona-American arrive at its final 12.00 percent cost of common equity for PV Water?
- A. The Company has settled on the low end of Dr. Kolbe's 12 percent to 13 percent estimate on a cost of equity capital for PV Water.
- Q. Please comment on Dr. Kolbe's testimony, which advocates the higher ATWACC estimates made by Dr. Vilbert.
- Α. Dr. Kolbe's testimony presents a lengthy explanation as to why an upward adjustment is needed for PV water's cost of common equity as a result of Arizona-American's leveraged capital structure. While I believe that Dr. Kolbe's testimony is an interesting exercise in academia, and may have weight in regard to business entities that operate in a truly competitive environment, the higher rate of return that he advocates for PV water is not warranted. While PV Water may have a higher degree of financial risk, as a result of the Company's leveraged capital structure, it is still a regulated entity that can apply for rate relief when the need arises. This being the case, the Company is actually less risky than firms that have nothing to turn to but bankruptcy court when their debt becomes excessively burdensome. The fact that the ACC has allowed cost recovery for increased water-testing costs, deferred Central Arizona Project costs and the costs associated with more stringent levels of arsenic is proof that water utilities in Arizona operate in a favorable regulatory environment which eliminates the need for the higher rates of

1		return advocated by Dr. Kolbe. For these reasons I believe that the
2		Commission should adopt my recommended 10.00 percent return on
3		common equity, which contains a 50 basis point upward adjustment for
4		the Company's financial risk.
5		
6	Q.	Does your silence on any of the issues, matters or findings addressed in
7		the testimony of Dr. Kolbe, Dr. Vilbert, Mr. Stephenson or any other
8		witness for Arizona-American constitute your acceptance of their positions
9		on such issues, matters or findings?
10	A.	No, it does not.
11		
12	Q.	Does this conclude your testimony on Arizona-American?
13	A.	Yes, it does.
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# **APPENDIX 1**

#### Qualifications of William A. Rigsby

**EDUCATION:** University of Phoenix

Master of Business Administration, Emphasis in Accounting, 1993

Arizona State University College of Business

Bachelor of Science, Finance, 1990

Mesa Community College

Associate of Applied Science, Banking and Finance, 1986

Michigan State University Institute of Public Utilities

N.A.R.U.C. Annual Regulatory Studies Program, 1997 &1999

Florida State University

Center for Professional Development & Public Service N.A.R.U.C. Annual Western Utility Rate School, 1996

**EXPERIENCE:** Public Utilities Analyst V

Residential Utility Consumer Office

Phoenix, Arizona April 2001 – Present

Senior Rate Analyst

Accounting & Rates - Financial Analysis Unit Arizona Corporation Commission, Utilities Division

Phoenix, Arizona July 1999 – April 2001

Senior Rate Analyst

Residential Utility Consumer Office

Phoenix, Arizona

December 1997 - July 1999

Utilities Auditor II and III

Accounting & Rates - Revenue Requirements Analysis Unit

Arizona Corporation Commission, Utilities Division

Phoenix, Arizona

October 1994 - November 1997

Revenue Auditor II

Arizona Department of Revenue Corporate Income Tax Audit Unit

Phoenix, Arizona

November 1993 - October 1994

Tax Examiner Technician I
Arizona Department of Revenue
Transaction Privilege Tax Audit Unit

Phoenix, Arizona

July 1991 - November 1993

# Appendix 1

## RESUME OF RATE CASE AND REGULATORY PARTICIPATION

Utility Company	Docket No.	Type of Proceeding
ICR Water Users Association	U-2824-94-389	Original CC&N
Rincon Water Company	U-1723-95-122	Rate Increase
Ash Fork Development Association, Inc.	E-1004-95-124	Rate Increase
Parker Lakeview Estates Homeowners Association, Inc.	U-1853-95-328	Rate Increase
Mirabell Water Company, Inc.	U-2368-95-449	Rate Increase
Bonita Creek Land and Homeowner's Association	U-2195-95-494	Rate Increase
Pineview Land & Water Company	U-1676-96-161	Rate Increase
Pineview Land & Water Company	U-1676-96-352	Financing
Montezuma Estates Property Owners Association	U-2064-96-465	Rate Increase
Houghland Water Company	U-2338-96-603 et al	Rate Increase
Sunrise Vistas Utilities Company – Water Division	U-2625-97-074	Rate Increase
Sunrise Vistas Utilities Company – Sewer Division	U-2625-97-075	Rate Increase
Holiday Enterprises, Inc. dba Holiday Water Company	U-1896-97-302	Rate Increase
Gardener Water Company	U-2373-97-499	Rate Increase
Cienega Water Company	W-2034-97-473	Rate Increase
Rincon Water Company	W-1723-97-414	Financing/Auth. To Issue Stock
Vail Water Company	W-01651A-97-0539 et al	Rate Increase
Bermuda Water Company, Inc.	W-01812A-98-0390	Rate Increase
Bella Vista Water Company	W-02465A-98-0458	Rate Increase
Pima Utility Company	SW-02199A-98-0578	Rate Increase

# Appendix 1

## **RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)**

Utility Company	Docket No.	Type of Proceeding
Pineview Water Company	W-01676A-99-0261	WIFA Financing
I.M. Water Company, Inc.	W-02191A-99-0415	Financing
Marana Water Service, Inc.	W-01493A-99-0398	WIFA Financing
Tonto Hills Utility Company	W-02483A-99-0558	WIFA Financing
New Life Trust, Inc. dba Dateland Utilities	W-03537A-99-0530	Financing
GTE California, Inc.	T-01954B-99-0511	Sale of Assets
Citizens Utilities Rural Company, Inc.	T-01846B-99-0511	Sale of Assets
MCO Properties, Inc.	W-02113A-00-0233	Reorganization
American States Water Company	W-02113A-00-0233	Reorganization
Arizona-American Water Company	W-01303A-00-0327	Financing
Arizona Electric Power Cooperative	E-01773A-00-0227	Financing
360networks (USA) Inc.	T-03777A-00-0575	Financing
Beardsley Water Company, Inc.	W-02074A-00-0482	WIFA Financing
Mirabell Water Company	W-02368A-00-0461	WIFA Financing
Rio Verde Utilities, Inc.	WS-02156A-00-0321 et al	Rate Increase/ Financing
Arizona Water Company	W-01445A-00-0749	Financing
Loma Linda Estates, Inc.	W-02211A-00-0975	Rate Increase
Arizona Water Company	W-01445A-00-0962	Rate Increase
Mountain Pass Utility Company	SW-03841A-01-0166	Financing
Picacho Sewer Company	SW-03709A-01-0165	Financing
Picacho Water Company	W-03528A-01-0169	Financing
Ridgeview Utility Company	W-03861A-01-0167	Financing
Green Valley Water Company	W-02025A-01-0559	Rate Increase
Bella Vista Water Company	W-02465A-01-0776	Rate Increase
Arizona Water Company	W-01445A-02-0619	Rate Increase

# Appendix 1

## RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)

<u>Utility Company</u>	Docket No.	Type of Proceeding
Arizona-American Water Company	W-01303A-02-0867 et al.	Rate Increase
Arizona Public Service Company	E-01345A-03-0437	Rate Increase
Rio Rico Utilities, Inc.	WS-02676A-03-0434	Rate Increase
Qwest Corporation	T-01051B-03-0454	Renewed Price Cap
Chaparral City Water Company	W-02113A-04-0616	Rate Increase
Arizona Water Company	W-01445A-04-0650	Rate Increase
Southwest Gas Corporation	G-01551A-04-0876	Rate Increase



After showing some brief signs of a turnaround last year, the Water Utility Industry appears to have reverted back to its old ways. Feeling the effects of uncooperating weather conditions and high infrastructure costs, the stocks in this industry have had trouble meeting earnings expectations and, as a result, have sorely underperformed the broader market in recent months. In fact, none of the water utility stocks that are covered in the next few pages are ranked better than 3 (Average) for Timeliness, based on our momentum based ranking system. As a whole, the industry ranks near the bottom of the Value Line investment universe.

And the future does not look much brighter. Although a more favorable regulatory landscape and normalized weather conditions ought to provide a better landscape, we are concerned that rapidly growing infrastructure costs will continue to undermine this group's earnings out to late decade.

#### **Easing Tensions**

Although designed to keep a balance of power between consumers and providers, regulatory authorities, have long been a thorn in the side of water utility companies. Rate relief case decisions had often been unfavorable and untimely, with some rulings being pushed off for as long as two years. But, it finally looks as though things are taking a turn for the better, especially in the state of California. The California Public Utilities Commission (CPUC), which is responsible for ruling on general rate case requests in the Golden State, has been handing down more-favorable and timely decisions in recent months, thanks, in part, to the efforts of Governor Schwarzenegger. He has replaced members thought to be antagonists of rate relief with more-business-friendly members, and additional moves may be in the works. The recent changes makes for a favorable backdrop for water utility companies operating in California, such as American Štates Water Co. and Čalifornia Water Service Group.

#### **Costs**

But, while regulators are easing their stance on rate case decisions, this does not look to be the case for infrastructure demands. Many of the current infrastruc-

Composite Statistics: Water Utility Industry							
2001	2002	2003	2004	2005	2006		08-10
751.8	794.4	857.0	985.6	1250	1350	Revenues (\$mill)	1725
95.4	106.6	98.6	122.4	155	170	Net Profit (\$mill)	235
40.2%	38.8%	40.0%	39.4%	39.5%	39.5%	Income Tax Rate	39.5%
				Nil	Nil	AFUDC % to Net Profit	Nil
52.4%	53.9%	51.2%	50.0%	52.0%	51.0%	Long-Term Debt Ratio	48.0%
47.2%	45.9%	48.6%	50.0%	48.0%	49.0%	Common Equity Ratio	52.0%
1840.7	1973.6	2296.4	2543.6	3000	3400	Total Capital (\$mill)	4100
2532.2	2751.1	3186.1	3532.5	4050	4250	Net Plant (\$mill)	5000
6.8%	7.0%	5.9%	6.7%	7.0%	7.5%	Return on Total Cap'l	7.0%
10.6%	11.2%	8.8%	10.7%	11.0%	11.0%	Return on Shr. Equity	11.5%
10.7%	11.2%	8.8%	10.7%	11.0%	11.0%	Return on Com Equity	11.5%
3.3%	3.8%	2.5%	4.6%	5.0%	5.0%	Retained to Com Eq	3.0%
69%	66%	72%	57%	60%	55%	All Div'ds to Net Prof	45%
22.6	21.5	26.0	25.5	D-1-1-6		Avg Ann'l P/E Ratio	18.0
1.16	1.17	1.48	1.36	Valu	gures are e Line	Relative P/E Ratio	1.20
3.1%	3.1%	2.8%	2.2%	esti	mates	Avg Ann'l Div'd Yield	3.4%

#### **INDUSTRY TIMELINESS: 93 (of 98)**

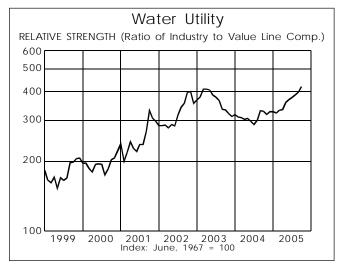
tures are upwards of 100 years old and are in severe need of maintenance and, in some cases, massive renovations and rebuilding. And, given the geopolitical volatility worldwide and the heightened threat of bioterrorism on U.S. water pipelines and reservoirs, these costs are likely to continue to only rise, as companies strive to comply with EPA water purification standards. Infrastructure repair costs are expected to climb in the hundreds of millions of dollars over the next two decades, putting many smaller water companies at a distinct disadvantage. With a dearth of resources to fund these improvements, many such companies are being forced to sell. But, given the current landscape, larger companies with the flexibility and capital to deal with the higher costs are utilizing the weakness to add additional legs of growth to their businesses. Aqua America, the largest water utility in our survey, for example, has made more than 90 acquisitions in the past five years, doubling its revenue base during that time. The company does not seem to be slowing its aggressive spending ways and has the highest return on equity of any of the stocks that we cover here.

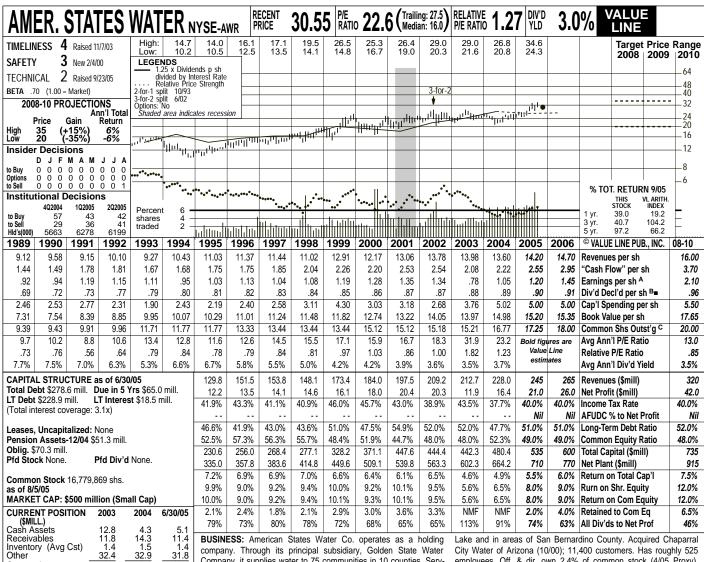
#### **Investment Advice**

Most investors will probably want to take a pass on the stocks in this industry. Typically market laggards, not one of the issues covered in the next few pages stands out for near-term or long-term capital gains potential. The limited financial resources of most of these companies, along with the capital-intensive nature of the industry, will probably limit any substantial growth out to late decade.

Those seeking to add an income component to their portfolio may find an attractive option here, though. Each of the stocks in this industry carries an above-average dividend yield, with *American States Water* and *California Water* offering the highest percentages. *California Water* offers some additional appeal, as it has a 2 (Above Average) Safety rank. As is always the case, we recommend that all potential investors take a more in depth look at the individual reports on the following pages before considering making any future financial commitments.

Andre J. Costanza





Company, it supplies water to 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to approximately 22,000 customers in the city of Big Bear

employees. Off. & dir. own 2.4% of common stock (4/05 Proxy). Chairman: Lloyd Ross. President & CEO: Floyd Wicks. Incorporated: CA. Add.: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel.: 909-394-3600. Web: www.aswater.com

Revenues "Cash Flow 2.5% 8.5% 5.0% 1.5% 1.0% 3.0% 12.0% 1.5% Earnings Dividends **Book Value** 4.5% 4.0% 3.5% **QUARTERLY REVENUES (\$ mill.)** Cal-Full Mar.31 Jun. 30 Sep. 30 Dec. 31 endar 2002 44.5 209.2 2003 46.7 51.8 63.7 2004 59.3 69.0 228.0 46.7 53.0 75.0 2005 49.8 60.5 245 2006 68.0 78.0 265 EARNINGS PER SHARE A Cal-Full Mar.31 Jun. 30 Sep. 30 Dec. 31 endar Year 2002 .25 .50 .23 1.34 2003 .20 .19 .51 d.12 .78 2004 .08 .30 .52 .16 1.05 2005 .09 .34 .54 .23 1.20 .39 2006 QUARTERLY DIVIDENDS PAID B. Cal-Full

.217

.217

.221

.221

.225

18.8

95.90

237%

Past

10 Yrs.

18.2 45.9

86.3

Past Est'd '02-'04

246%

5 Yrs.

4.0%

49.7

18.8

49 7

92.4

Year

.87

.87

.88

Dec.31

.217

.221

250%

to '08-'10

Current Assets

Accts Payable Debt Due

Current Liab.

Fix. Chg. Cov.

ANNUAL RATES

of change (per sh)

endar

2001

2002

2003

2004

2005

.217

.217

.221

.221

.225

American States Water continues to receive favorable regulatory backing from the state of California. The Cali-Public Utilities Commission fornia (CPUC), which oversees all Cal-based utilities, recently ruled that the company could impose temporary surcharges in Region III to recover an under collection of \$2.9 million from November, 2001 and December, 2003. The surcharges went into effect October 11th, and are expected to recover the entire \$2.9 million over a 12month period. The ruling was obviously a positive for AWR and looks to be a precursor of things to come. After years of being forced to deal with delayed and unfavorable case rulings, it appears that the tide is turning for the better. Behind Governor Schwarzenegger's urging, the CPUC has been more-business friendly in recent months. Such an environment ought to prove beneficial for American . Water, as it awaits rulings on additional general rate cases.

Nevertheless, the company continues to look to other arenas. American has been attempting to privatize U.S. military bases for years and finally appears to be

gaining the necessary traction to implement its nonregulated growth strategy. With last year's Fort Bliss, Texas contract under its belt, the company has now reached an agreement to operate and maintain the water and wastewater systems of five military bases in Maryland and Virginia. In total, these contracts are valued at more than \$238 million over their 50-year life span. We believe that the most recent deal could add roughly a nickel to the bottom line per annum. The company has roughly 20 military bids outstanding, which could significantly boost our current 2008-2010 projections.

Still, these untimely shares probably do not stand out. Although incomeminded investors may like the stock's dividend yield, capital constraints limit its 3-5-year growth potential. Already strapped for cash, American will likely have to continue tapping the equity and debt markets to keep up with rising infrastructure costs. Such moves will dilute earnings and may even preclude it from taking advantage of the fragmented industry and acquisition opportunities.

Andre J. Costanza October 28, 2005

(A) Primary earnings. Excludes nonrecurring gains: '91, 73¢; '92, 13¢; '04, 14¢; '05, 11¢. Next earnings report due early Nov. Quarterly earnings may not sum due to change in share

Mar.31 Jun.30 Sep.30

.217

.217

.221

.221

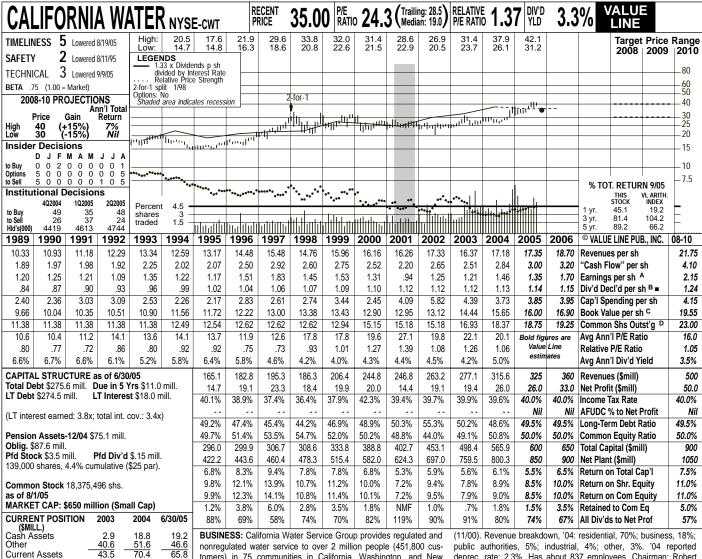
.225

(B) Dividends historically paid in early-March, June, September, December. ■ Div'd reinvestment plan available.

(C) In millions, adjusted for splits.

Company's Financial Strength Stock's Price Stability B+ 85 Price Growth Persistence 80 **Earnings Predictability** 65

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nonregulated water service to over 2 million people (451,800 customers) in 75 communities in California, Washington, and New Mexico. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired National Utility Company (5/04); Rio Grande Corp.

public authorities, 5%; industrial, 4%; other, 3%. '04 reported deprec. rate: 2.3%. Has about 837 employees. Chairman: Robert W. Foy. President & CEO: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwater.com

Fix. Chg. Cov ANNUAL RATES Past Est'd '02-'04 Past to '08-'10 of change (per sh) 10 Yrs. 5 Yrs. 3.0% 2.0% 2.0% -1.5% 4.0% 7.5% Revenues "Cash Flow" Earnings Dividends -0.5% 2.0% -6.5% 1.0% 8.5% 1.5% **Book Value** 1.0% 5.0%

23.8 7.3

63.6

218%

19.8

36.4

57.2

309%

30.1

1 1

37.9

69.1

325%

Accts Payable Debt Due

Current Liab.

Other

Cal-			VENUES (		Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	51.7	69.2	81.4	60.9	263.2
2003	51.3	68.0	88.2	69.6	277.1
2004	60.2	88.9	97.1	69.4	315.6
2005	60.3	81.5	104	79.2	325
2006	70.0	95.0	110	85.0	360
Cal-	EAF	RNINGS PI	R SHARE	ΑE	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	.12	.43	.50	.20	1.25
2003	d.05	.30	.53	.41	1.21
2004	.08	.59	.59	.20	1.46
2005	.03	.41	.65	.26	1.35
2006	.12	.62	.67	.29	1.70
Cal-	QUAR	TERLY DIV	IDENDS P	AID B =	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2001	.279	.279	.279	.279	1.12
2002	.28	.28	.28	.28	1.12
2003	.281	.281	.281	.281	1.12
2004	.283	.283	.283	.283	1.13
2005	.285	.285	.285		
1					

CWT since the mid-1990s. Still, mother nature has prompted us to lower our full-year 2005 earnings estimate. As was the case in the first guarter. unseasonably wet weather dampened usage rates for the company in

California Water Service Group looks poised to take advantage of the changing regulatory landscape in California. Although the company was forced to deal with slow and unfavorable rate case rulings in past years, the California Public Utilities Commission which is in charge of supervising all Calbased utilities, appears to have undergone some major changes and taken on a more business-friendly disposition. Indeed, we think that the rash of recent positive decisions by the board signals that the regulatory climate is improving and that the current regulatory bodies' policies augur well for CWT heading forward. For example, the company's 2004 general rate case was recently approved by the CPUC, granting it a \$7.6 million increase in annual revenues with a 10.1% return on equity (ROE). This is encouraging, given that this is the highest ROE granted to

the second quarter. In fact, earnings were down 34% on a year-over-year basis in the first half of the year. Although we expect weather conditions will return to more normal trends (third quarter results were not out when we went to press with this publication), the first-half disappointment led us to lower our full-year 2005 earnings estimate by \$0.20, to \$1.35 a share.

Growth-minded investors will want to look elsewhere. Although we anticipate that CWT's earnings will bounce back strongly in 2006,due to better meteorological conditions, we think that the growth will moderate thereafter. Despite the improving regulatory landscape, we are concerned about escalating infrastructure costs and the company's need to generate capital to meet these obligations. The financing that we believe will be necessary will likely be dilutive to earnings. Moreover, these untimely shares are already trading well within our 3- to 5year Target Price Range. The recent dip in price may interest income-oriented investors, though, given the stock's above-average dividend yield. Andre J. Costanza October 28, 2005

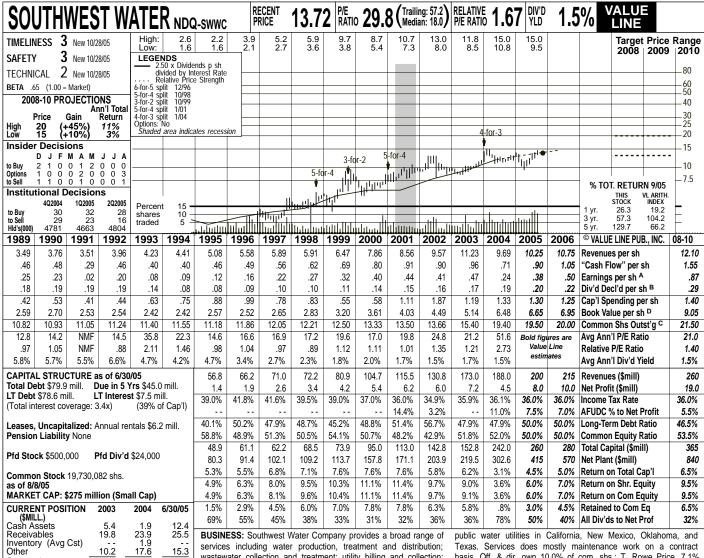
(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; Q2 '02, 8¢. Next earnings

**(B)** Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvestment plan

**(C)** Incl. deferred charges. In '04: \$54.3 mill., \$2.96/sh.

(D) In millions, adjusted for split. (E) May not total due to change in shares.

Company's Financial Strength Stock's Price Stability B++ 90 Price Growth Persistence **Earnings Predictability** 70



services including water production, treatment and distribution; wastewater collection and treatment; utility billing and collection; utility infrastructure construction management; and public works services. It operates out of two groups, Utility (37% of 2004 revenues) and Services (63%). Utility owns and manages rate-regulated

Texas. Services does mostly maintenance work on a contract basis. Off. & dir. own 10.0% of com. shs.; T. Rowe Price, 7.1% (4/05 proxy). Chrmn & CEO: Anton C. Garnier. Inc.: DE. Addr.: One Wilshire Building, 624 S. Gramd Avemie. Ste. 2900, Los Angeles, CA 90017. Tel.: 213-929-1800. Internet: www.southwestwater.com.

Past ANNUAL RATES Past Est'd '02-'04 of change (per sh) to '08-'10 9.0% 7.5% 11.5% Revenues "Cash Flow" 11.0% 6.5% 7.0% 10.5% Earnings 15.0% 2.0% 8.0% Dividends Book Value 13.0%

35.4

11.4 2.7

31.4

45.3

12.3 3.4

20.0

35.7

53.2

11.3 1.3

32.9

Current Assets

Accts Payable Debt Due

Current Liab.

Cal- endar			VENUES (\$ Sep. 30		Full Year
2002 2003 2004	28.2 36.1 39.8	41.5	51.4	44.0	130.8 173.0 188.0
2005 2006	46.9 <b>50.0</b>	51.3		-	200 215
Cal- endar			ER SHARE Sep. 30		Full Year
2002 2003 2004 2005 2006	.04 d.01  d.01 .07	.11 .14 .14 .15 <b>.15</b>	.13 .22 .12 <b>.16</b> .18	.13 .12 d.02 .08 .10	.41 .47 .24 .38 .50
Cal- endar	QUAR Mar.31		/IDENDS P Sep.30		Full Year
2001 2002 2003 2004 2005	.036 .038 .042 .046 .05	.036 .038 .042 .046 .05	.038	.038 .046	.14 .15 .17 .19 .20

This report marks the debut of Southwest Water Company in The Value **Line Investment Survey.** The company provides both regulated and nonregulated water service in several states. It also provides utility submetering to over two million customers in 36 states.

Southwest's second-quarter revenues were the highest in the company's history. During the period, revenues rose 12% and share earnings gained a penny. The solid showing was fueled by last year's acquisition of Monarch Utilities and increased project work. This was especially impressive, as Southwest achieved the results despite heavy rainfall in the company's main operating region, California. Looking forward, we expect a steady stream of rate filings to help support topline advances over the next two years.

The company's largest utility subsidiary in California, Suburban Water, should file for a rate increase soon. The exact amount being asked for is still unknown, but this looks to be the first major case filed before the new, and possibly more Southwest-friendly California Public Utilities Commission. If the results

of this filing are favorable, we expect the subsidiary to become a primary growth driver behind earnings in 2006 and beyond.

Proceeds from the Master Tek divesture have been put to good use. Management described the growth outlook for Master Tek, a billing and collection company for multi-family residential properties, as being lackluster. The company was able to sell the subsidiary in June for approximately \$10 million, and most likely used part of the proceeds to acquire the Shelby County, Alabama wastewater system in September. The Alabama systems are nonregulated, which means higher margins for the company. As an added bonus, Southwest was able to secure 11 years of automatic 8% rate increases in the region. We expect the acquisition to start making a positive impact on company profits by early 2006.

Shares of Southwest Water Company are ranked average for year-ahead performance. However, our projections show total-return potential for the years out to 2008–2010 to be fairly limited. Praneeth Satish October 28, 2005

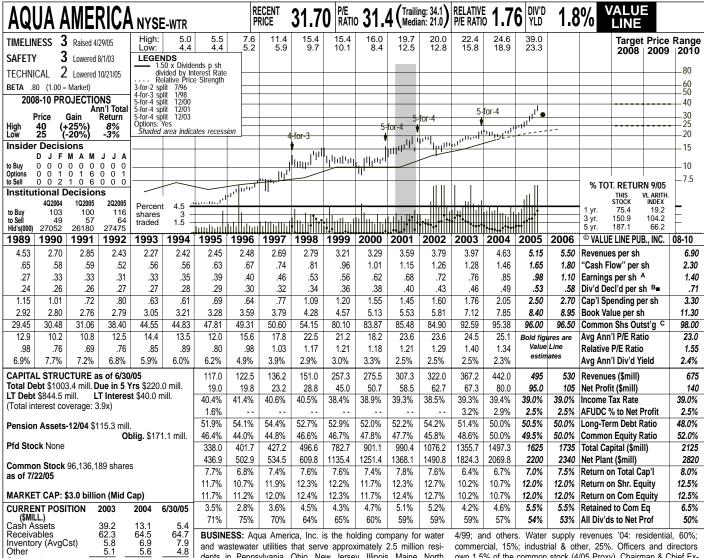
(A) Diluted earnings. Excludes nonrecurring gains (losses): '00, (3¢); '01, (5¢); '02, 1¢; '05, (24¢). Next earnings report due early Novem-

April, July, and October.

(C) In millions, adjusted for splits

(B) Dividends historically paid in late January, | (D) Includes intangibles. At 6/30/05, \$31.1 mil-April, July, and October.

Company's Financial Strength Stock's Price Stability 80 Price Growth Persistence **Earnings Predictability** 60



dents in Pennsylvania, Ohio, New Jersey, Illinois, Maine, North Carolina, Texas, Florida, Kentucky, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired AquaSource, 7/03; Consumers Water,

own 1.5% of the common stock (4/05 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

Past Est'd '02-'04 ANNUAL RATES Past 10 Yrs. to '08-'10 of change (per sh) 5 Yrs. Revenues "Cash Flow 5.5% 9.5% 7.5% 9.5% 9.0% 10.0% 9.0% 5.5% 8.5% 6.5% 10.0% 8.0% Earnings Dividends **Book Value** 8.5% 10.5% 9.0% QUARTERLY REVENUES (\$ mill.) Cal-Full Mar.31 Jun.30 Sep.30 Dec.31 endar Year 2002 322.0 2003 80.5 83.4 102.1 101.2 367.2 99.8 106.5 120.3 115.4 442.0 123.1 135 495 2005 114.0 122.9 530 2006 125 130 140 135 EARNINGS PER SHARE A D Full Cal-Mar.31 Jun.30 Sep.30 Dec.31 Year

90.1

23.5 135.3

217.4

364%

32.3 135.8

232.0

344%

82.8

15.3 158.9

230.6

361%

2004 endar 2002 .16 .17 2003 .15 .18 .24 .19 .76 2004 .17 .19 .26 .24 .85 2005 .23 .29 .26 .98 .20 .25 .28 2006 QUARTERLY DIVIDENDS PAID B = Cal-Full Mar.31 Jun.30 Sep.30 Dec.31 endar 2001 .099 .099 .099 .106 2002 .106 .106 .106 .112 2003 .112 .112 .112 .12 .46 2004 .12 .12 .12 .13 2005 .13 .13 .13 .143

Current Assets

Accts Payable Debt Due

Current Liab.

Fix. Chg. Cov.

Aqua America did well again in the second quarter, as year-to-year sales rose 16% and earnings gained 21%. The strong showing was driven by rate increases and customer growth. Also of note during the period was the company's announcement that it would increase quarterly dividends by 10% and implement a four-for-three stock split, both of which become effective December 1, 2005. Rate increases should continue to help fuel top-line growth. The company expects to file \$42 million worth of rate cases over the remainder of this year. The filings will be spread across multiple states, but almost \$30 million will likely apply to Pennsylvania. Looking forward a few years, we expect Texas and California to be key growth states. Management has also expressed enthusiasm over possible rate wins in North Carolina due to the election of a new governor.

Aqua's strong balance sheet will likely continue to support acquisitions over the years out to 2008-2010. The company's strategy is to grow customer rolls by 4% annually, which, when coupled with rate increases, typically leads to a 7% in-

crease in yearly revenue. Growth over last two years, though, has been accelerated thanks to a couple of well-timed large acquisitions, the most notable being AquaSource. However, in the past, Aqua has tended to purchase numerous smaller businesses, and we suspect the company will return to this strategy. By yearend, Aqua should have made close to 30 acquisitions in 2005, on top of the two large ones. Plant spending, though, will likely increase substantially in the coming years since larger acquisitions require a greater amount of maintenance. However, Aqua's A+ credit rating allows it to borrow at very low rates, so we do not expect it to slow down on the acquisition front.

Aqua America shares are ranked average for year-ahead performance. Increased media attention towards the water industry has helped shares of the company climb over 30% this year, but fundamentals in the industry have remained largely unchanged. Based on our long-term earnings projections, WTR is already trading in our 3- to 5-year Target Price Range, making appreciation potential limited.

Praneeth Satish October 28, 2005

(A) Primary shares outstanding through '96; diluted thereafter. Excl. nonrec. gains (losses): '90, (38¢); '91, (34¢); '92, (38¢); '99, (11¢); '00, 2¢; '01, 2¢; '02, 5¢; '03, 4¢. Excl. gain from

disc. operations: '96, 2¢. Next earnings report due early November. (B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).

(C) In millions, adjusted for stock splits.
(D) May not sum due to rounding.

Company's Financial Strength Stock's Price Stability B+ 85 Price Growth Persistence **Earnings Predictability** 100



The Natural Gas Distribution Industry is ranked near the bottom of the Value Line universe for Timeliness: 95 of (98). The key features of gas utility stocks are their safety and better-thanaverage dividend yields, rather than price performance or appreciation potential. It should be noted that the distribution industry is in the middle of its most profitable quarters, thanks to the winter heating season.

#### **Regulated Utilities**

Local distribution companies (LDCs) are natural gas utilities that are regulated by both individual state and/or federal regulatory agencies. They are considered natural monopolies since it is more cost-effective to build one pipeline system to serve a region, versus multiple distributors competing over the same location. Since these companies are essentially able to operate as monopolies, the government sets allowable rates of return each company can earn, typically between 10% and 12%. This is one of the contributing factors to the limited volatility in share prices for these distributors. However, should earnings be less than the permitted rate, the company is able to petition regulators for higher rates. Likewise, if it is determined that a distributor is earning in excess of its allowable rates, it may be subject to a rate review. In addition, some companies now have weather plans in place to protect against abnormal temperatures. Two such companies are WGL Holdings in its Maryland service territory, and Southwest Gas. The Maryland weather-normalization program protects the company against revenue variations due to changes in usage, caused by weather deviations from the norm, along with conservation among customers. Southwest is awaiting a rate case decision in Arizona, which would mitigate the impact of weather on earnings and allow the company to recover higher costs. Programs such as these create a more consistent year-over-year earnings stream.

#### **Nonregulated Activities**

Industry deregulation has allowed gas utilities to expand their businesses beyond their normal distribution operations. The companies that expand into those arenas enjoy the opportunity to enter businesses with no restrictions on return on equity. Some activities include retail energy marketing, energy trading, and oil and gas

	Composite Statistics: Natural Gas (Distribution)										
2001	2002	2003	2004	2005	2006		08-10				
27611	22947	29981	33220	35000	37950	Revenues (\$mill)	42000				
1070.4	1231.5	1395.3	1735.9	1750	1850	Net Profit (\$mill)	2100				
39.7%	35.3%	37.4%	35.6%	36.0%	36.0%	Income Tax Rate	36.0%				
3.9%	5.4%	4.7%	5.2%	5.0%	4.9%	Net Profit Margin	5.0%				
57.4%	57.8%	55.9%	53.2%	53.0%	53.0%	Long-Term Debt Ratio	52.5%				
41.5%	41.4%	43.7%	45.7%	45.0%	45.0%	Common Equity Ratio	45.5%				
24342	24907	28436	31268	33500	35400	Total Capital (\$mill)	39450				
24444	25590	31732	32053	33500	35000	Net Plant (\$mill)	40000				
6.1%	6.6%	6.4%	7.1%	7.0%	7.0%	Return on Total Cap'l	7.0%				
10.3%	11.7%	11.1%	11.9%	12.0%	12.0%	Return on Shr. Equity	12.5%				
10.5%	11.8%	11.2%	12.0%	12.0%	12.0%	Return on Com Equity	12.5%				
2.5%	3.9%	4.1%	5.5%	5.5%	5.5%	Retained to Com Eq	5.5%				
76%	68%	64%	55%	60%	60%	All Div'ds to Net Prof	60%				
16.8	14.8	14.1	13.6	Bold fie	gures are	Avg Ann'l P/E Ratio	13.0				
.86	.81	.80	.72	Valu	e Line mates	Relative P/E Ratio	.87				
4.5%	4.5%	4.5%	4.0%	esui	naics	Avg Ann'l Div'd Yield	4.6%				
244%	280%	314%	308%	315%	330%	Fixed Charge Coverage	375%				

#### **INDUSTRY TIMELINESS: 95 (of 98)**

exploration and production. In fact, nearly all of the companies in this industry have at least some exposure to the nonregulated segment, with many looking to further expand operations here. One such company is *South Jersey* at its Marina Energy unit. The division will be expanding its Atlantic City thermal electric plant to support the scheduled 500,000-square-foot expansion at the Borgata Hotel casino & Spa.

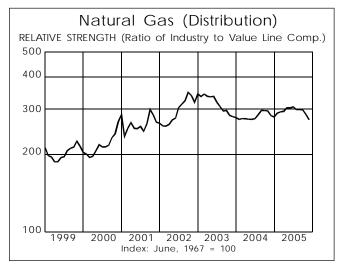
#### **Natural Gas Prices**

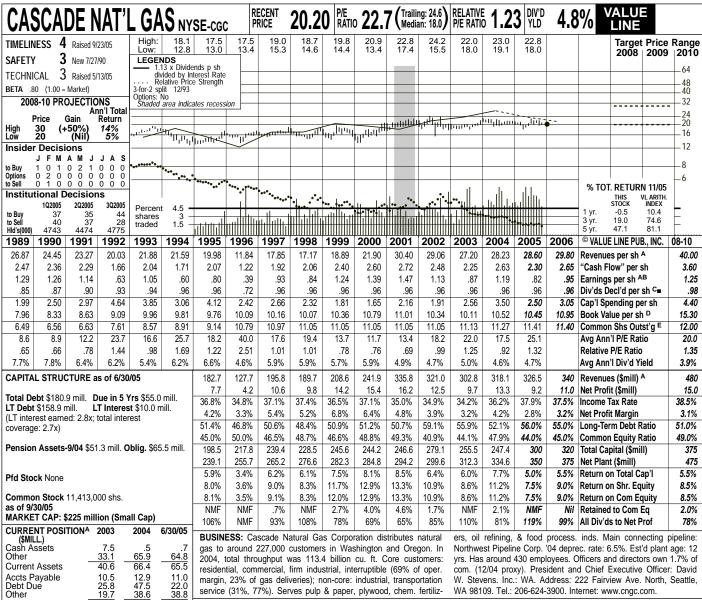
Natural gas prices reached lofty levels following the hurricanes that hit the Gulf Coast. Although they came down somewhat, they were still high compared to prior years. Prices have recently returned to these high levels, most likely because of cold weather in the Northeast. Typically, those companies that are involved in nonregulated activities stand to benefit the most from higher prices. The regulated utilities continue to earn their allowable rate of return, but the added expenses are eventually passed on to customers in the form of higher utility bills. These added charges then result in a higher level of bad debt expense, since some low-income customers are unable to afford these bills. Sharply rising bills can also result in the loss of customers to other fuels. If the winter turns out to be colder than normal, gas volume use will likely increase. However, due to high gas prices, customers may well begin to conserve to cut down on their utility bills, thereby lowering profits.

#### **Investment Advice**

The stocks in this industry are generally suitable for income-oriented investors, and offer good stock price stability. Risk-adverse investors still may want to primarily focus on those companies that derive most of their earnings from regulated activities. As companies have begun to shift their operations toward nonregulated businesses, the potential for capital appreciation is increased, but so is the risk for capital losses. Note that especially high dividend yields for stocks in this sector can mean growth opportunities are constrained. Also, as companies expand into nonregulated activities they may be less willing to raise the dividend payout, instead using these funds to finance capital expenditures.

Evan I. Blatter





65.5 11.0 22.0 38.8 71.8

ANNUAL RATES Past Est'd '02-'04 Past 10 Yrs. to '08-'10 of change (per sh) 5 Yrs. Revenues "Cash Flow" 3.0% 3.0% 6.0% 6.5% Earnings Dividends 3.0% .5% 7.0% 3.5% 1.0% .5% **Book Value** 

56.0

213%

12.9 47.5

38.6

99.0

260%

269%

Accts Payable Debt Due

Current Liab.

Fix. Chg. Cov.

Fiscal Year Ends	QUART Dec.31	ERLY RE\ Mar.31	/ENUES (\$ Jun.30	mill.) <sup>A</sup> Sep.30	Full Fiscal Year
2002	102.8	122.3	56.8	39.1	321.0
2003	100.5	109.3	53.8	39.2	302.8
2004	104.9	119.4	52.1	41.7	318.1
2005	104.6	117.7	56.3	47.9	326.5
2006	107	125	60.0	48.0	340
Fiscal	EAF	RNINGS PE	R SHARE	A B	_Full
Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Fiscal Year
2002	.56	.86	d.06	d.23	1.13
2003	.60	.67	d.18	d.22	.87
2004	.72	.79	d.05	d.26	1.19
2005	.59	.65	d.10	d.32	.82
2006	.62	.68	d.09	d.26	.95
Cal-	QUAR	TERLY DIV	IDENDS P	AID C■	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2001	.24	.24	.24	.24	.96
2002	.24	.24	.24	.24	.96
2003	.24	.24	.24	.24	.96
2004	.24	.24	.24	.24	.96
2005	.24	.24	.24	.24	

residential, commercial, firm industrial, interruptible (69% of oper. margin, 23% of gas deliveries); non-core: industrial, transportation service (31%, 77%). Serves pulp & paper, plywood, chem. fertiliz-

We believe that Cascade Natural Gas bottom line will recover some in fiscal 2006, which began October 1st. This should come about partly by further expansion of the customer base, an adjustment in the employee benefits plan, and savings from a consolidated call center for customers. The company should also be helped by the absence of costs stemming from the transition to a new executive team, and staff reductions (which, combined, amounted to \$0.13 a share last year). But demand from residential and commercial customers may be held back, to a certain extent, by conservation efforts caused by persistently high natural gas prices and improved energy efficiency in buildings and appliances. Too, it seems that margins from the gas management services business will continue to suffer from competition from energy marketers, a segment that has made a comeback since the demise of Enron. All things considered, Cascade's earnings per share may well advance to \$0.95 in fiscal 2006.

We remain positive about the company's 2008-2010 prospects. Generally favorable economic conditions in Washing-

com. (12/04 proxy). President and Chief Executive Officer: David W. Stevens, Inc.: WA. Address: 222 Fairview Ave. North, Seattle. WA 98109. Tel.: 206-624-3900. Internet: www.cngc.com

ton and Oregon helped annual account hookups to rise at a steady rate in the past, and it appears that this trend will continue. Also, given the environmental advantages of natural gas and assuming that prices for this fuel source don't get out of reach for the mainstream, a significant portion of new customers may still come from conversions. These factors ought to enable annual bottom-line gains to be in the upper-single-digit range over the coming 3- to 5-year period.

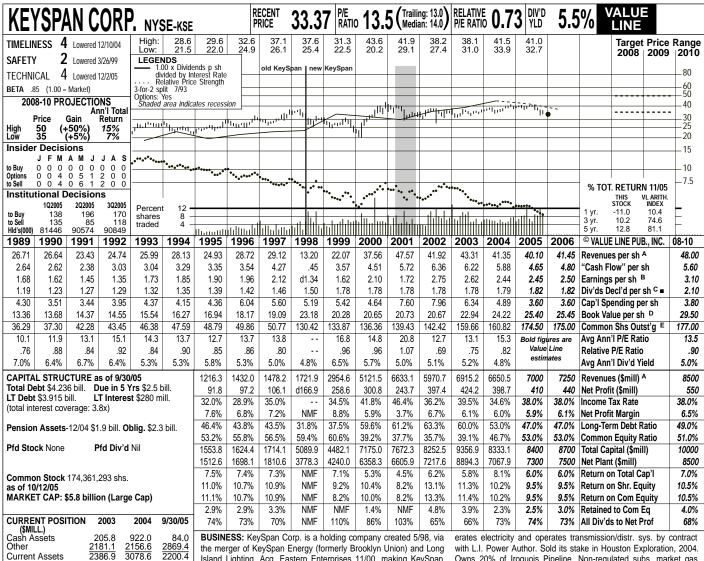
Cascade shares, ranked 4 (Bel Average) for Timeliness, offer (Below **decent dividend yield.** But additional increases in the payout will likely be slow in coming, as cash flows are used to meet the requirements of a growing customer base. Another factor to consider is the sensitivity of earnings to changes in service-area temperatures, given the absence of weather-normalization adjustment mechanisms. (Management is seeking a rate design that would diminish the temperature impact, but it's unclear, at this juncture, when regulators would approve such a measure.)

Frederick L. Harris, III December 16, 2005

(A) Cal. yr. thru. 12/95. Changed to 9/30 fiscal yr. in '96. (B) Primary egs. thru. '97, then diluted. Excl. nonrec. gains (losses): '91, 19¢; '02, (16¢); '03, (5¢). '04 egs. don't add to total due to rounding. Next egs. rpt. due late Jan. (C) Dividends historically paid in the middle of '93, 3¢; '96, (11¢); '98, (2¢); '99, (1¢); '01, 9¢; Feb., May, Aug., Nov. ■Div'd reinvest. plan

(D) Incl. deferred charges. In '04: \$21.4 mill., \$1.90/sh. (E) In mill., adj. for stk. split.

Company's Financial Strength Stock's Price Stability B+ 80 Price Growth Persistence **Earnings Predictability** 70



Island Lighting. Acq. Eastern Enterprises 11/00, making KeySpan the largest gas distributor in the Northeast, serving most of New York City and nearby Long Island, and parts of New England. Has 2.5 mill. gas meters in one-family homes and apartments. Also gen-

Owns 20% of Iroquois Pipeline. Non-regulated subs. market gas supplies, sell ind'l energy mgmt. svcs. Has 9,950 empls. Chrmn.: R.B. Catell. Inc.: NY. Address: 1 MetroTech Center, Brooklyn, NY 11201. Tel.: 718-403-1000. Web:www.keyspanenergy.com.

Past Est'd '02-'04 ANNUAL RATES Past to '08-'10 of change (per sh) 10 Yrs. 5 Yrs. 6.0% 8.0% 13.5% 17.0% Revenues "Cash Flow" 3.0% -.5% 4.5% 3.0% 21.0% 1.0% Dividends 1.5% Book Value 4.0% 5.0% Cal- QUARTERLY REVENUES (\$ mill.) A

1141.6 483.4

1848.8

315%

906.7

928.3 447.3

2282.3

257%

756.3 321.5

1708.9

NMF

Accts Payable Debt Due

Current Liab.

Fix. Chg. Cov

Other

endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	1871	1215	1076	1807	5970.7
2002	2512	1408	1131	1862	6915.2
2004	2595	1365	1050	1638	6650.5
2005	2480	1342	1303	1875	7000
2006	2700	1425	1200	1925	7250
Cal-	EAF	RNINGS PE	R SHARE	A B	Full
endar		Jun.30		Dec.31	Year
2002	1.51	.20	.02	1.02	2.75
2003	1.53	d.05	.07	1.07	2.62
2004	1.39	.13	.03	.88	2.43
2005	1.43	.11	.13	.78	2.45
2005 2006	1.43 <b>1.47</b>	.11 <b>.10</b>	.13 <b>.05</b>	.78 .88	2.45 2.50
	1.47	.10		.88	
2006	1.47	.10	.05	.88	2.50
2006 Cal-	1.47 QUART	.10 ERLY DIVII	.05 DENDS PA	.88 ■ 0 A G	2.50 Full
2006 Cal- endar	1.47 QUART Mar.31	.10 ERLY DIVII Jun.30	.05 DENDS PA Sep.30	.88 ID A C ■ Dec.31	2.50 Full Year
2006 Cal- endar 2001	1.47 QUART Mar.31 .445	.10 ERLY DIVII Jun.30 .445	.05 DENDS PA Sep.30 .445	.88 ID A C ■ Dec.31	2.50 Full Year 1.78
2006 Cal- endar 2001 2002	1.47 QUART Mar.31 .445 .445	.10 ERLY DIVII Jun.30 .445 .445	.05 DENDS PA Sep.30 .445 .445	.88 ID A C ■ Dec.31 .445 .445	2.50 Full Year 1.78 1.78
2006 Calendar 2001 2002 2003	1.47 QUARTI Mar.31 .445 .445 .445	.10 ERLY DIVII Jun.30 .445 .445 .445	.05 DENDS PA Sep.30 .445 .445 .445	.88 ID A C ■ Dec.31 .445 .445 .445	2.50 Full Year 1.78 1.78 1.78

KevSpan's third-quarter earnings came in better than expected. (Our estimate was a loss of a penny a share.) Electric services profits jumped 34% as a result of weather that was 50% warmer than normal, fuel price spreads, and good online performance by the generating plants. That more than offset increased losses in the gas distribution business (which usually loses money in the summer), due in part to higher uncollectible debts. Finally, interest costs declined 24% from the prior-year period, thanks to an 11% reduction in outstanding debt since the end of 2004 and debt refinancing. We think that uncollectible debts will remain above recent levels through next winter.

The earnings outlook for 2006 is mixed. On the plus side, the company will probably hook up enough new gas customers in 2005 to raise gross profits by around \$40 million in 2006. And Massachusetts has approved a regulatory change that should permit KeySpan to recover more uncollectible debts. But gas customers will probably pay 30% to 40% more for heat this winter, an unprecedented jump that could result in very high bad debts and

noticeable conservation. Electric service earnings could suffer in 2006 if a planned 10% generating capacity increase in New York City actually comes on line. New York regulators, however, will probably raise the amount of power that must be generated in the City, mitigating the effects of new capacity. Finally, the sideline energy services business should lose a bit less or even make a little money.

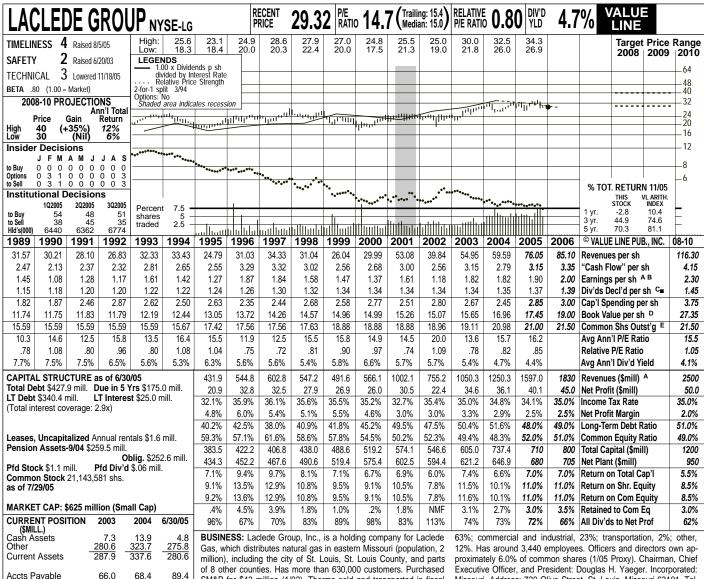
Longer term, share net should rise at modest pace. KeySpan has over 500,000 prospective gas customers near its mains that could be hooked up relatively easily. New York City's power demands should grow steadily and yield more profits, despite some possible excess capacity in 2006. And, having reduced its debt-tocapital ratio to around 47%, the company could invest several hundred million dollars in acquisitions without endangering its credit ratings

These untimely shares offer decent risk-adjusted total return potential. KSE's dividend yield is above the industry average, and the company has some growth prospects. Sigourney B. Romaine December 16, 2005

(A) Data for former KeySpan Energy through '97 (years ended 9/30); new KeySpan Corp. from '98 on a calendar fiscal year. (B) Diluted shs. Excl. nonrecur. gains (charges): '90,

(\$0.19); '96, \$0.52; '97, \$0.16; '03, (\$0.23); '04, (\$0.40). Excl. gain (loss) discont. ops.: '00, (\$0.02); '01, (\$0.14); '02, (\$0.14); '03, \$0.01; '04, \$0.81. Next egs. report due late Jan. **(C)** \$18.31 /sh. **(E)** In millions, adjusted for split.

Company's Financial Strength Stock's Price Stability B++ 95 Price Growth Persistence 55 **Earnings Predictability** 20



of 8 other counties. Has more than 630,000 customers. Purchased SM&P for \$43 million (1/02). Therms sold and transported in fiscal '04: 1.12 mill. Revenue mix for regulated operations: residential,

Laclede Group's core natural gas dis-

tribution unit, Laclede Gas, could have a rough time in fiscal 2006

(which ends September 30th). Volumes

may be held in check by conservation ef-

forts spurred by persistently high natural

gas prices. Furthermore, operating ex-

penses should continue to rise, reflecting

increased rates charged by suppliers and

higher off-system gas costs. But performance ought to be aided partly by a hedging

program intended to limit gas-price vola-

tility, and a weather-mitigation mechan-

ism that has been in effect since 2002. Too,

a rate hike was recently approved by the Missouri Public Service Commission, al-

though less than what management re-

quested.
The other segments stand to deliver

decent results this year, though.

SM&P Utility Resources, the unregulated

unit specializing in locating and marking

services for underground facilities, should

Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri, Address: 720 Olive Street, St. Louis, Missouri 63101, Telephone: 314-342-0500. Internet: www.lacledegas.com

marketing segment, to be boosted by a

steady rise in interstate pipeline wholesale

transactions. Nevertheless, consolidated

share net may advance only 5%, to \$2.00,

in fiscal 2006.

Fix. Chg. Cov. ANNUAL RATES Past Past Est'd '02-'04 of change (per sh) 10 Yrs. **5 Yrs.** 11.0% to '08-'10 5.0% 1.0% 1.5% Revenues "Cash Flow" -1.0% -.5% 6.5% 6.0% Earnings Dividends Book Value 1.0% 2.5% .5% 1.5% 1.5% 9.5%

66.0

96.5 97.7

262 6

279%

218.2 82.1

366.3

295%

Debt Due Other

Jan.

Current Liab.

89 4

87.5 82.3

259 2

280%

			,	• , • •	3.070
Fiscal Year Ends	QUAR1 Dec.31	TERLY REV Mar.31	/ENUES (\$ Jun.30	mill.) <sup>A</sup> Sep.30	Full Fiscal Year
2002	194.6	287.5	147.3	125.8	755.2
2003	280.1	422.2	186.6	161.4	1050.3
2004	332.6	475.0	245.1	197.6	1250.3
2005	442.5	576.5	311.3	266.7	1597.0
2006	515	635	365	315	1830
Fiscal	EAR	NINGS PEI	R SHARE	ABF	_Full _
Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Fiscal Year
2002	.41	1.10	d.05	d.28	1.18
2003	.80	1.14	.11	d.21	1.82
2004	.87	1.12	.19	d.28	1.82
2005	.79	1.06	.29	d.24	1.90
2006	.83	1.13	.28	d.24	2.00
Cal-	QUART	ERLY DIV	IDENDS PA	/ID c∎	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2001	.335	.335	.335	.335	1.34
2002	.335	.335	.335	.335	1.34
2003	.335	.335	.335	.335	1.34
2004	.335	.34	.34	.34	1.36
2005	.34	.345	.345	.345	

(A) Fiscal year ends Sept. 30th.
(B) Based on average shares outstanding thru. (C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvest- (E) In mi 97, then diluted. Next earnings report due late ment plan available. (D) Incl. deferred charges. In '04: \$206.6 mill., shares outstanding.

ergy

benefit from additional business in both new and existing markets, plus improvements in operational efficiency. Meanwhile, we expect earnings for Laclede En-Resources, the non-utility gas

(E) In millions. Adjusted for stock split.
(F) Qtly. egs. may not sum due to change in

ready trading near our 3- to 5-year Target Price Range, and assuming moderate increases in the dividend. Meanwhile, these good-yielding shares are ranked to underperform the broader market averages for

the next six to 12 months.

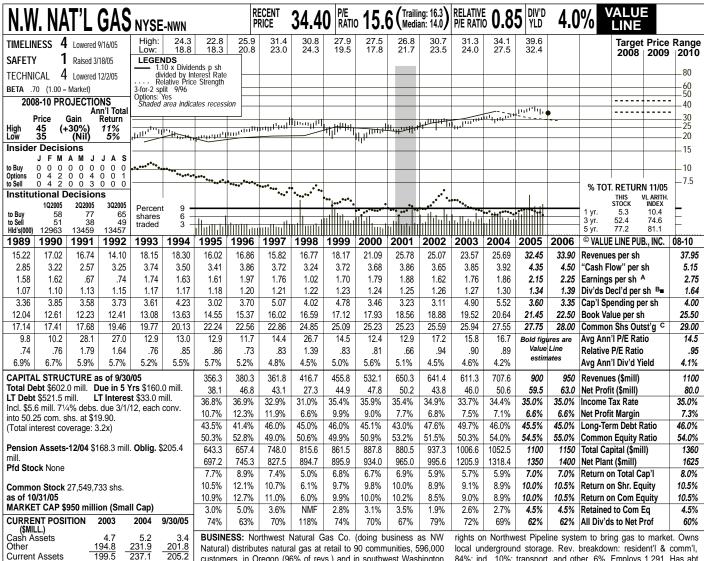
The company's prospects out to the end of this decade are unspectacular, too, given that Laclede Gas is operating in a mature market. Indeed, the customer base has been expanding roughly 1% annually, which means that internal growth for this business will remain moderate, at

best. As such, any substantial gains will have to come from the unregulated units or from acquisitions, scenarios we don't see happening anytime soon. That said, annual bottom-line increases ought to be in the mid-single-digit range over the 2008-2010 period.

Long-term total-return potential for the equity is limited, given that it is al-

Frederick L. Harris, III December 16, 2005

Company's Financial Strength Stock's Price Stability B+ 95 Price Growth Persistence 50 **Earnings Predictability** 65



Natural) distributes natural gas at retail to 90 communities, 596,000 customers, in Oregon (96% of revs.) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.4 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation

local underground storage. Rev. breakdown: resident'l & comm'l, 84%; ind., 10%; transport. and other, 6%. Employs 1,291. Has abt 9,200 com. shrhldrs. Insiders own about 1% of com. (4/05 proxy). CEO: Mark S. Dodson. Inc.: OR. Addr.: 220 NW 2nd Ave., Portland, OR 97209. Telephone: 503-226-4211. Web: www.nwnatural.com

8.0% 4.5% 4.5% **Book Value** 4.0% QUARTERLY REVENUES (\$ mill.) Cal-Full Mar.31 Jun.30 Sep.30 Dec.31 endar 641.4 2002 278.6 101.9 2003 206.5 117.5 69.5 217.8 2004 254.5 109.7 81.4 262.0 707.6 2005 308.7 153.7 106.7 330.9 2006 350 175 125 300 950 EARNINGS PER SHARE A Cal-Full endar Mar.31 Jun.30 Sep.30 Dec.31 Year 2002 1.32 1.62 d.13 d.26 2003 1.01 .17 d.25 .83 1.76 2004 1.24 d.03 d.30 .95 1.86 2005 1.43 .04 d.31 .99 2.15 1.50 .02 2006 d.31 QUARTERLY DIVIDENDS PAID B = Cal-Full Mar.31 Jun.30 Sep.30 Dec.31 endar 2001 2002 .315 .315 .315 .315 1.26 2003 .315 .315 .315 .325 1.27 .325 .325 .325 .325 2004 1.30 2005 .325 .325 .325

86.0 85.2

214 4

280%

Past

10 Yrs.

4.0% 1.0%

2.5% 1.0%

102.5 117.5

267.3

316%

5 Yrs.

8.0% 1.5%

3.0%

Past Est'd '02-'04

to '08-'10

7.5% 5.0%

81.7 80.5

218.5 NMF

Accts Payable Debt Due

Current Liab.

Fx. Chg. Cov.

of change (per sh)

Revenues "Cash Flow

Dividends

ANNUAL RATES

Other

Northwest Natural's third-quarter loss was about as expected, despite a considerable increase in revenues and cost of gas. Gross profit rose about \$5 million, due largely to price hikes, as residential, commercial, and firm industrial volumes were virtually unchanged from the prior-year period. Profits from interstate gas storage contributed \$0.06 a share in 2005, due to the completion of the South Mist Pipeline Extension, compared with \$0.02 in 2004. Notably, bad debt expense remained at a low level of half a percent of revenues, despite higher gas bills. During the September quarter, the Oregon Public Utility Commission renewed the company's "conservation" tariff for another four years and raised its coverage from 90% to 100% of residential and commercial volumes. The mechanism largely decouples earnings from gas volumes sold. We look for a more normal share-net gain over the next year. Northwest's weather adjustment rate mechanism (WARM) added \$0.18 a share to firstquarter 2005 earnings, so we do not anticipate a similar gain in 2006. But the company added 3.4% more gas customers in

the 12 months ended September 30th, and they should contribute to the bottom line in 2006. The storage business will likely add a few cents a share, too, Importantly, Northwest had bought most of its gas for the current heating season by August 1st; that should limit the average increase in residential bills to around 15%, which is well below the national average forecast increase. As a result, we do not expect industrial gas volumes to suffer.

Earnings will probably grow slightly faster than the industry average. Northwest has raised its customer count at more than 3% per year for 19 years, and we see no reason why that should change. The company has enough good new customer prospects (on or near its mains) to potentially raise its count by over 40%. And NWN has borrowing capacity to fund acquisitions, should a neighboring utility

come on the market.

These top-quality shares have some appeal to conservative accounts at their recent price. The stock is down from its recent high, and we think annual dividend hikes will continue.

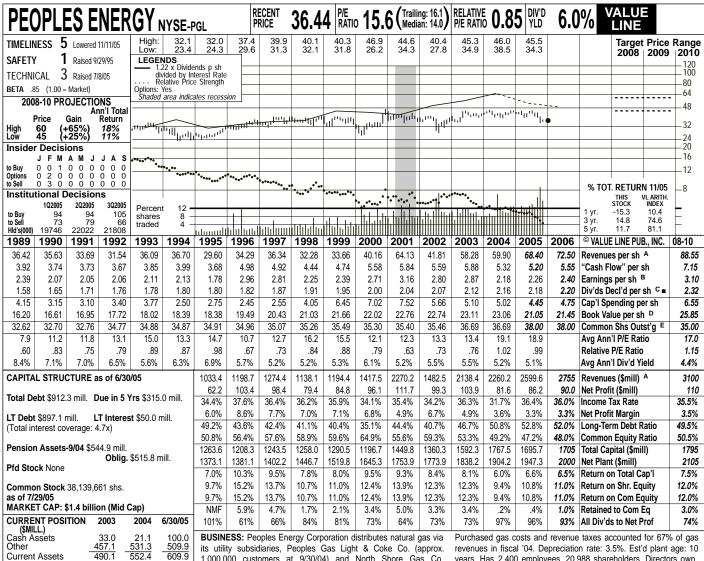
Sigourney B. Romaine December 16, 2005

(A) Diluted earnings per share. Excludes non-recurring gain: '98, \$0.15; '00, \$0.11. Next earnings report due early February. (B) Dividends historically paid in mid-February,

mid-May, mid-August, and mid-November.

■ Div'd reinvestment plan available. (C) In millions, adjusted for stock split.

Company's Financial Strength Stock's Price Stability 100 Price Growth Persistence **Earnings Predictability** 70



1,000,000 customers at 9/30/04) and North Shore Gas Co. (150,000), in Chicago and northeastern Illinois. Fiscal 2004 volume: 229 bill. cu. ft.: residential, 51%; commercial, 9%; industrial, 2%; other, 38%. Main supplier is Natural Gas Pipeline Co. of America.

years. Has 2,400 employees, 20,988 shareholders. Directors own 1% of common (1/05 Proxy). Chairman and CEO: Thomas M. Patrick. Inc.: Illinois. Address: 130 East Randolph Drive, Chicago, IL 60601. Telephone: 312-240-4000. Internet: www.pecorp.com. gram, in addition to well performance is-

536 1 571 1 Fiscal 2005 (ended September 30th) 304% 388% was not the best year for Peoples En-Past Est'd '02-'04 ergy. For the full year, operating results 5 Yrs. 10.0% to '08-'10 for the core gas distribution business were 9.0% 4.0% 3.0% negatively impacted by an 5% decline in gas deliveries, to 218 billion cubic feet. 4.0% This resulted in a \$7 million dip in operat-2.0% ing income for the division. Deliveries fell Full Fiscal Year QUARTERLY REVENUES (\$ mill.) A due to a combination of warmer weather, Sep.30 Dec.31 Mar.31 Jun.30 lower average use per customer, and a 235.1 1482.5 decrease in customer count. Indeed, 2138.4 287.3 weather for the year was 9% warmer than 327.1 2260.2 normal and 4% warmer than last year. 2599.6 379.4 Higher pension and bad debt expenses 370 2755 didn't help matters either. We believe that EARNINGS PER SHARE A B bad debt expenses and conservation could Dec.31 Mar.31 Jun.30 Sep.30 prove worse than management presently .05 2.80 anticipates this fiscal year, which will depress earnings. Peoples is filing rate .04 F 2.87 F 2.18 d.27 cases this January for its two utilities, seeking a total of \$90-115 million that would become effective at the beginning of d.06 2.26 .01 2.40 QUARTERLY DIVIDENDS PAID C= Full 2007. Meanwhile, Mar.31 Jun.30 Sep.30 Dec.31 Year

163.5 15.2 392.4

2.03

2.07

2.12

2.16

Production in the Oil and Gas segment continues to fall. Overall production declined nearly 12% in fiscal 2005. Management once again cited ongoing timing delays with the company's drilling prosues, pipeline curtailments, and equipment downtime. Peoples' production segment was again overly hedged in the September quarter and suffered \$7.7 million in mark-to-market losses.

We have lowered our share earnings estimate for fiscal 2006 by \$0.30, to **\$2.40.** This is near the upper end of management's reduced target range. The full weight of rate relief and the expiration of profit-crimping hedges may not help until fiscal 2007. At this level of earnings, the company's payout ratio stands dangerously close to 95%, a level we feel is unsustainable over the long haul. This leads us to wonder whether dividend increases will be slow to come in the future. Non core operations have not been enough to cover the faltering gas distribution business. That said, we believe the dividend is safe for now, though we expect management might choose to halt quarterly increases, or keep them to one-half cent per share, rather than the one cent gains shareholders were used to in the past. Peoples stock is untimely.

Edward Plank December 16, 2005

.545 2005 .545 (A) Fiscal year ends Sept. 30th.
(B) Basic earnings per share. Excludes acct'g gains/(losses): '89, \$0.30; '99, \$0.22; '00, (\$0.27). Next earnings report due late Jan.

Accts Pavable

Current Liab.

Fix. Chg. Cov.

of change (per sh)

Revenues "Cash Flow"

Dividends Book Value

377.5

549.2

604.9

737.4

.87

.87

.85

.77

.79

.50

.51

.53

.54

805

Earnings

Fiscal

Year Ends

2002

2003

2004

2005

2006

Year Ends

2002

2003

2004

2005

2006

Cal-

endar

2001

2002

2003

2004

ANNUAL RATES

Debt Due Other

236 6

207.9 156.1

600 6

259%

347.1

398.1

401.1

455.9

.22

.15

.18

.22

.51

.52

.53

.51

.52

.53 .54

465

Past

10 Yrs.

522.8

903.8

927.0

1026.9

1115

1.55

1.77

1.46

1.37

1.38

.51

.52

53

.54

5.0% 4.5% 3.5%

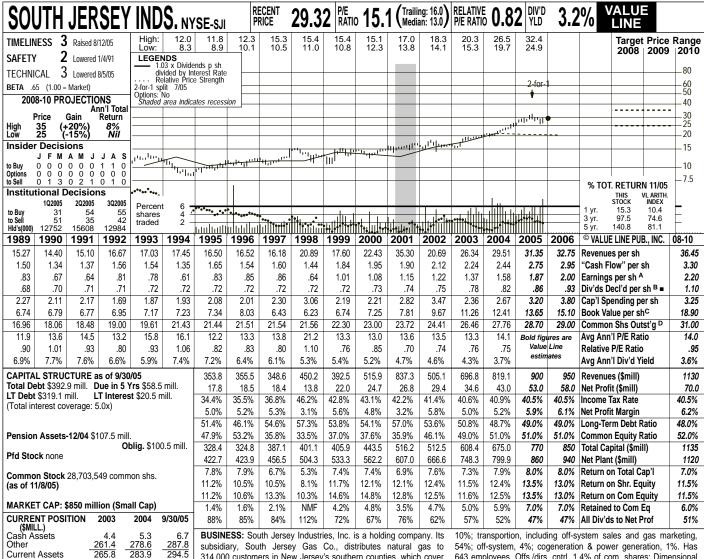
55.6 335.8

(C) Dividends historically paid mid-January, April, July, October. ■ Dividend reinvestment plan available. (D) Includes deferred charges. At 9/30/04:

\$74.0 mill., \$1.96/sh.

(E) In millions.(F) Earnings don't sum due to change in shares outstanding.

Company's Financial Strength Stock's Price Stability A 95 Price Growth Persistence 45 **Earnings Predictability** 80



BUSINESS: South Jersey Industries, Inc. is a holding company. Its subsidiary, South Jersey Gas Co., distributes natural gas to 314,000 customers in New Jersey's southern counties, which cover 2,500 square miles and include Atlantic City. Principal suppliers include Transcontinental Gas Pipeline and Columbia Gas Pipeline. Gas revenue mix '04: residential, 31%; commercial and industrial,

10%; transportion, including off-system sales and gas marketing, 54%; off-system, 4%; cogeneration & power generation, 1%. Has 643 employees. Offs./dirs. cntrl. 1.4% of com. shares; Dimensional Fund Advisors, 7.4% (3/05 proxy). Chrmn. & CEO: Edward Graham. Incorp.: NJ. Address: 1 South Jersey Plaza, Rte. 54, Folsom, NJ 08037. Telephone: 609-561-9000. Web: www.sijindustries.com.

Fix. Chg. Cov 378% 427% 445% Past Est'd '02-'04 ANNUAL RATES Past to '08-'10 of change (per sh) 10 Yrs. 5 Yrs. 4.0% 4.5% 7.0% 7.0% 6.0% 6.5% Revenues "Cash Flow" 6.5% 1.0% 10.5% 8.0% 6.0% Dividends Book Value 11.5% 9.5%

80.3 118.1

268.5

118.8 97.6

68.9

285.3

Accts Payable Debt Due

Current Liab.

Other

136.7 73.8 113.4

323.9

Cal-			VENUES (		Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	177.0	84.2	69.1	174.8	505.1
2003	279.9	106.2	90.1	220.6	696.8
2004	307.6	136.5	129.5	245.5	819.1
2005	328.5	154.0	157.0	260.5	900
2006	340	170	165	275	950
Cal-	E/	ARNINGS F	PER SHAR	EΑ	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	.83	.03	d.14	.50	1.22
2003	.92	.08	d.07	.44	1.37
2004	.91	.15	.02	.50	1.58
2005	.96	.27	.09	.55	1.87
2006	1.00	.30	.13	.57	2.00
Cal-	QUAR	TERLY DI	VIDENDS F	PAID B	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2001	.182	.185	.185	.185	.74
2002	.185	.188	.188	.38	.94
2003		.193	.193	.395	.78
2004		.202	.202	.415	.82
2005		.213	.213	.438	

South Jersey Industries is on pace for another good year in 2005. It reported earnings of \$37.1 million over the first nine months, up nearly 30% from the yearago period. These results were driven by strong profits at the company's utility segment, along with an expanding nonregulated division (discussed below). Over the last 12 months, South Jersey Gas added 9,068 customers, representing a near 3% growth rate, well above the national average. Coupled with a strong housing market in South Jersey, profits in this unit will likely expand at a nice pace over the 2008–2010 period.

The company expects to make significant additions to its reserves for bad debt. This is due to the projected high natural gas prices this winter, which would result in higher heating bills, and the likelihood of customers being unable to afford these costs. South Jersey will take measures to promote budget billing options and low-income assistance programs. South Jersey is experiencing solid growth from its nonregulated businesses. So far this year, the segment

has contributed \$12 million to earnings,

43% above last year's tally. The Marina Energy unit should experience additional growth in the next few years, thanks to expansion projects under way. This includes the development of a landfill gas-to-electric power generation facility in Warren Country, along with the expansion of its Atlantic City thermal electric plant to support the scheduled 500,000-square-foot expansion at the Borgata Hotel Casino & Spa. Profits from appliance services should rise, too, as penetration in the residential market is expanded and service in the commercial market is initiated.

The company has implemented an early retirement program. This would provide South Jersey with significant future cost savings in the payroll, healthcare benefits, and pension areas.

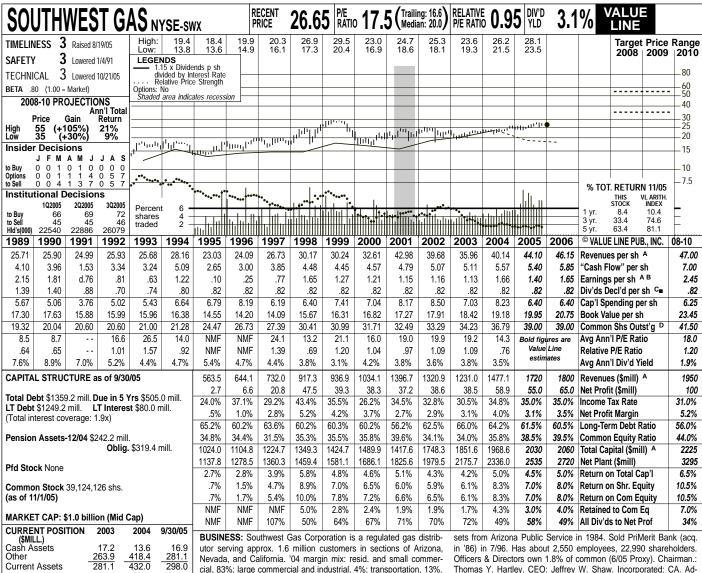
South Jersey is a good-quality equity. However, its dividend yield is below that of the average natural gas distributor covered in *The Value Line Investment Survey*. Over the 3- to 5-year pull, we look for continued growth in the customer base, expansion in the nonutility sector, and above-average dividend increases. *Evan I. Blatter*December 16, 2005

(A) Based on avg. shs. Excl. nonrecur. gain: '01, \$0.13. Excl gain (losses) from discont. ops.: '96, \$1.14; '97, (\$0.24); '98, (\$0.26); '99, (\$0.02); '01, (\$0.04); '01, (\$0.02); '02, (\$0.04);

'03, (\$0.09); '05, (\$0.01). Excl. gain due to acct'g change: '93, \$0.04; '01, \$0.14. Next egs. report due late January.
(B) Dividends paid early Apr., Jul., Oct, and

late Dec. • Div. reinvest. plan avail. (2% disc.). (C) Incl. regulatory assets (\$76.2 mill.): at 9/30/05, \$2.65 per shr. (D) In millions, adjusted for split.

Company's Financial Strength Stock's Price Stability 100
Price Growth Persistence 90
Earnings Predictability 85



Accts Payable Debt Due 165.9 129.8 97.6 110.1 58 4 110.0 141.9 187.3 Current Liab. 310.4 483.0 390.3 Fix. Chg. Cov. 182% 166% 183%

ANNUAL RATES Past Est'd '02-'04 Past 10 Yrs. to '08-'10 of change (per sh) 5 Yrs. Revenues "Cash Flow" 4.0% 3.0% 6.0% 4.5% 3.5% 6.0% Earnings Dividends 10.5% 1.5% 4.0% 4.0% 1.5% 4 0% **Book Value** 1.5%

Cal-	QUAR	TERLY RE	VENUES (	\$ mill.)	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	499.5	261.1	223.9	336.4	1320.9
2003	403.3	255.8	220.2	351.7	1231.0
2004	473.4	278.7	264.5	460.5	1477.1
2005	542.9	361.1	313.3	502.7	1720
2006	565	390	330	515	1800
Cal-	EAF	RNINGS PI	R SHARE	BE	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2002	1.14	d.35	d.49	.86	1.16
2003	.76	d.12	d.51	1.00	1.13
2004	1.18	d.24	d.51	1.23	1.66
2005	.88	d.07	d.43	1.02	1.40
2006	1.00	d.07	d.45	1.17	1.65
Cal-	QUAR	TERLY DIV	IDENDS P	AID C=	Full
endar	Mar.31	Jun.30	Sep.30	Dec.31	Year
2001	.205	.205	.205	.205	.82
2002	.205	.205	.205	.205	.82
2003	.205	.205	.205	.205	.82
2004	.205	.205	.205	.205	.82
2005	.205	.205	.205	.205	

cial, 83%; large commercial and industrial, 4%; transportation, 13%. Annual volume: 2.2 billion therms. Principal suppliers: El Paso Natural Gas Co. and Northwest Pipeline Corp. Acquired gas utility as-

Southwest Gas had a stronger-thanexpected third-quarter. Share loss of \$0.43, was above our estimate of \$0.55, and a solid improvement over last year. The company is finally beginning to see the results of its rate case initiatives bear fruit. Indeed, rate relief in Nevada and California, coupled with an incremental \$4 million in gross margin from customer additions, accounted for the improvement.

The company is awaiting a rate-case decision in Arizona, which would mitigate the impact of weather on earnings and allow the company to recover its higher costs—all of which should benefit earnings going forward. Importantly, without the change in rate design, we think that Southwest's return on equity will continue to lag that of its peers. We suspect that Southwest will receive at least half of the \$70.8 million it is seeking from the Arizona Corporation Commission (ACC). The proposed rate increase includes components designed to more closely tie the company's revenues to the fixed costs incurred in providing service. One proposed enhancement to the rate schedule is to shift more revenue into lower-usage peri-

Thomas Y. Hartley. CEO: Jeffrey W. Shaw. Incorporated: CA. Address: 5241 Spring Mountain Rd., P.O. Box 98510, Las Vegas, NV 89193-8510. Telephone: 702-876-7237. Internet: www.swgas.com.

ods and away from peak winter periods that depend on cold weather, which would reduce SWX's exposure to potentially warmer-than-normal temperatures. A decision is expected in early 2006.

During the last twelve months, Southwest added a record 79,000 customers. Typically, this pace of customer growth, while impressive, has been a doublededged sword for the company, given the implicit costs associated with such rapid expansion, but the improved rate structure is helping to ease the burden.

Southwest shares are not a standout. The company's balance sheet remains fairly highly leveraged, and higher interest rates have raised the cost of SWX's variable-rate debt. Plus, since dividend payments have not expanded in almost a decade, SWX shares are not all that appealing as an income vehicle. At about 3\%, the dividend yield remains decent, but we think investors may want to look elsewhere for now. While we feel that the utility is showing signs of stabilizing earnings, a favorable award from the ACC is key to the long-term story here. Edward Plank December 16, 2005

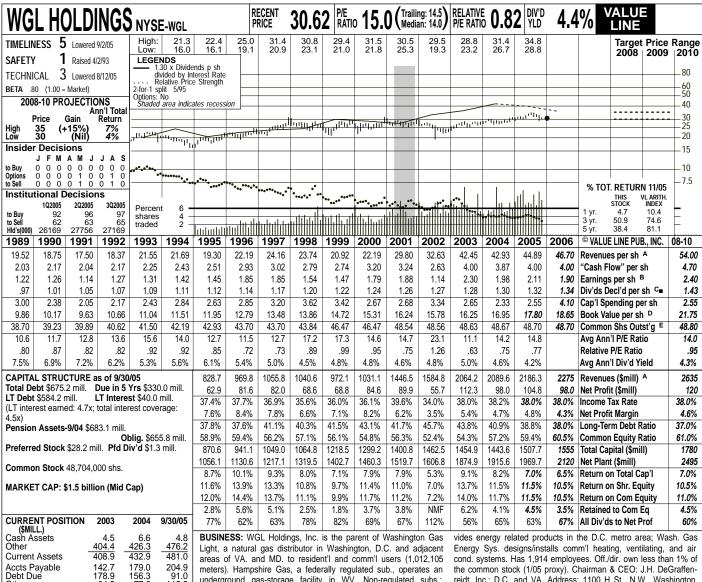
(A) Incl. income for PriMerit Bank on the equity basis through 1994. (B) Based on avg. shares outstand. thru. '96 then diluted. Excl. nonrec. gains (losses): '93,

8¢; '97, 16¢; '02, (10¢). Incl. asset writedown: '86, 9¢; '93, 44¢. Excl. loss from disc. ops.: '95, 75¢. Next egs. report due late January. (C) Dividends historically paid early March,

June, September, December.

Div'd reinvest. plan avail. (D) In millions. (E) Quarters may not sum due to change in shares outstanding.

Company's Financial Strength Stock's Price Stability В 95 Price Growth Persistence 55 **Earnings Predictability** 65



areas of VA. and MD. to resident'l and comm'l users (1,012,105 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and procond. systems. Has 1,914 employees. Off./dir. own less than 1% of the common stock (1/05 proxy). Chairman & CEO: J.H. DeGraffenreidt. Inc.: D.C. and VA. Address: 1100 H St., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wglholdings.com.

WGL's fourth-quarter results (ended September 30th) were better than **normal.** This was due to higher profits in the nonregulated division, which reduced the typical seasonal losses experienced in the September period. Too, Maryland's weather normalization program now provides the company protection against revenue variations due to changes in usage caused by weather deviations and conservatism among customers. For 2006, WGL is targeting capital expenditures of about \$200 million, a sharp increase over the \$124 million in the previous year. This is due to costs associated with the rehabilitation occurring in the Prince George's County service area, along with the construction of an LNG peaking plant.

The company's service area is located in one of the fastest-growing utility markets in the country. Due to the affluence of the region, higher gas prices will continue to represent a small portion of the total income for many of these individuals. Therefore, Washington Gas will likely experience less of an increase in bad debt expense compared to other gas distributors. Long-term, the company contin-

ues to anticipate adding 25,000-30,000 new customers per year. This represents a 2.7% annual growth rate, nearly twice the national average.

The company's nonregulated business continues to expand. For fiscal 2005, the unit posted earnings of \$16 million, nearly 93% above the year-ago period. The results comprised \$22.3 million from the retail energy marketing segment, offset by a \$3.9 million loss in the heating, ventilating, and air-conditioning segment (HVAC) and a \$2.4 million loss in its other activities. Despite the HVAC shortfall, WGL will continue to operate the segment. The unit has value, since it is close to breaking even and would cost more to shut down. Moreover, the primary driver of the earnings advance in the marketing segment was due to higher gross margins in the sale of natural gas.

Though the stock is untimely, income-oriented investors may find it **appealing.** WGL has increased its dividend for 29 consecutive years, and we expect the streak to continue. The current yield is a respectable 4.4% Evan I. Blatter December 16, 2005

.333 (A) Beginning 1989, fiscal years end Sept. 30th.

156.3 77.6

412.9

449%

5 Yrs.

4.0% 2.0% 1.5%

3.0%

Sep.30

279.9

285.2

284.1

310

Sep.30

d.47

d.37

.318

.325

.333

Past Est'd '02-'04

411.4

460%

to '08-'10

5.5% 5.0%

5.0% 2.0%

5.0%

Full Fisca Year

1584.

2064.

2089.6

2186.

2275

Full

1.14

1.98

2.11

Full

1.27

1.28

1.30

386.1

487%

Past

10 Yrs.

Dec.31 Mar.31 Jun.30

564.8

851.1

862.2

931.5

935

Mar.31

1.09

1.61

1.62

1.63

1.54

.315

.318

.32

.325

QUARTERLY DIVIDENDS PAID C =

560.0

585.3

624.1

645

Dec.31

.66

1.10

.81

.88

.87

Mar.31

.315

.318

.32

.325

6.5% 4.5%

3.0% 1.5%

4.0%

QUARTERLY REVENUES (\$ mill.) A

EARNINGS PER SHARE A B

314.2

373.2

356.9

346.6

385

Jun.30

d.14

d.05

d.08

d.17

Jun.30 Sep.30 Dec.31

.315

.318

.32

.325

.333

Other

Current Liab.

Fix. Chg. Cov

of change (per sh)

Revenues "Cash Flow

Dividends

Fiscal

Year Ends

2003

2004

2005

2006

**Fiscal** 

Year Ends

2002

2003

2004

2005

2006

Cal-

endar

2001

2002

2003

2004

2005

**Book Value** 

ANNUAL RATES

(B) Based on diluted shares. Excludes nonrecurring losses: '01, (13¢); '02, (34¢).

Next earnings report due late January.
(C) Dividends historically paid early February,
May, August, and November. ■ Dividend reinvestment plan available.

(D) Includes deferred charges and intangibles. '04: \$156.5 million, \$3.22/sh.

(E) In millions, adjusted for stock split.

Company's Financial Strength Stock's Price Stability 100 Price Growth Persistence **Earnings Predictability** 60





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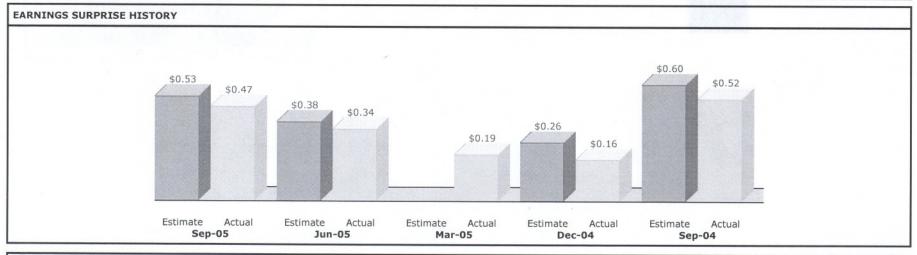
#### **Earnings Estimates**

Analyst Estimates				- 4	Current Estimates
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	
Current Average Estimate	0.21	0.23	1.14	1.46	
High	0.22	0.24	1.30	1.50	\$0.47
Low	0.20	0.22	1.00	1.38	\$0.21 \$0.23
# of Analysts	3	2	3	3	
Year ago actual	0.16	0.19	1.18	_	
EPS growth (year-over-year)	29.17%	21.05%	(3.67%)	28.45%	Actual This Next This Next Last qtr qtr qtr year year

ANALYST RECOMMEND	ATIONS - AMER S	STATES WTR (A	WR)		a watere it of		
Recommendation	History				<b>Current Recom</b>	mendations	
	Current	1-month	2-month	3-month	Number of brokers		
Strong Buy	0	0	0	0	Strong Buy	0	

1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	3	3	3	3	Consensus		3	
			Aver	age Reco	ommendation			
Strong Sell	0	0	0	0	Strong Sell	0		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	3	3	3	2	Hold			3
Mod Buy	0	0	0	0	Mod Buy	0		

Consensus EPS T	rend				Earnings Growth Rate					
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5
Current	0.21	0.23	1.14	1.46	6.00%	AWR	4.20%	0.30%	4.00%	
7 Days Ago	0.21	0.23	1.15	1.46	6.00%	UTIL-WATER SPL	7.10%	18.30%	7.80%	6.30%
1 Month Ago	0.22	0.23	1.30	1.46	6.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.22	0.23	1.30	1.46	6.00%					
3 Months Ago	0.23	0.22	1.30	1.44	6.00%	974				



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# **Earnings Estimates**

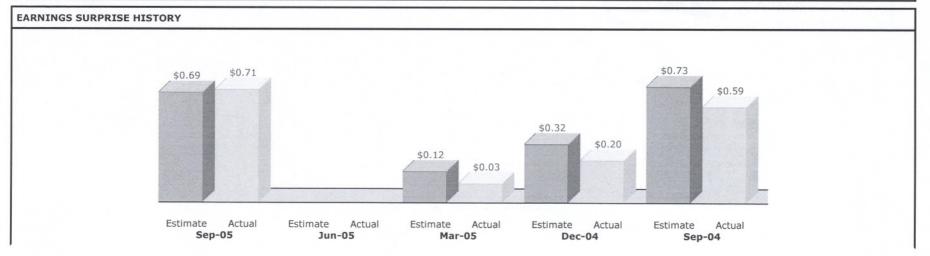
EARNINGS PER SHARE (EPS) ESTIMATES - CA	LIF WATER SVC (	CWT)							
Analyst Estimates					<b>Current Estim</b>	ates			
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	,			\$1.49	\$1.71
<b>Current Average Estimate</b>	0.29	0.15	1.49	1.71					
High	0.36	0.18	1.60	1.86	\$0.71				11.00
Low	0.22	0.11	1.38	1.60		\$0.29	\$0.15		
# of Analysts	4	2	6	6					
Year ago actual	0.20	0.03	1.46	-			<b>国色的</b>		
EPS growth (year-over-year)	43.75%	383.33%	1.71%	15.04%	Actual Last qtr	This qtr	Next qtr	This year	Next year

ANALYST RECOMMENDATIONS - CALIF WATER SVC (CWT)

**Recommendation History** 

	Current	1-month	2-month	3-month	Number of brokers			
Strong Buy	1	1	1	1	Strong Buy		1	
Mod Buy	1	1	1	1	Mod Buy		1	
Hold	4	4	4	3	Hold			4
Mod Sell	0	0	0	0	Mod Sell	0		
Strong Sell	0	0	0	0	Strong Sell	0		
			A	verage Reco	ommendation			
Consensus	2.5	2.5	2.5	2.5	Consensus		2.5	
1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell

Consensus EPS T	rend					<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5 years
Current	0.29	0.15	1.49	1.71	7.67%	CWT	-	-	23.60%	6.00%
7 Days Ago	0.29	0.15	1.49	1.71	7.67%	UTIL-WATER SPL	7.10%	18.30%	7.80%	6.30%
1 Month Ago	0.28	0.15	1.49	1.71	7.67%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.28	0.15	1.46	1.71	7.67%					
3 Months Ago	0.29	0.18	1.44	1.71	7.67%					





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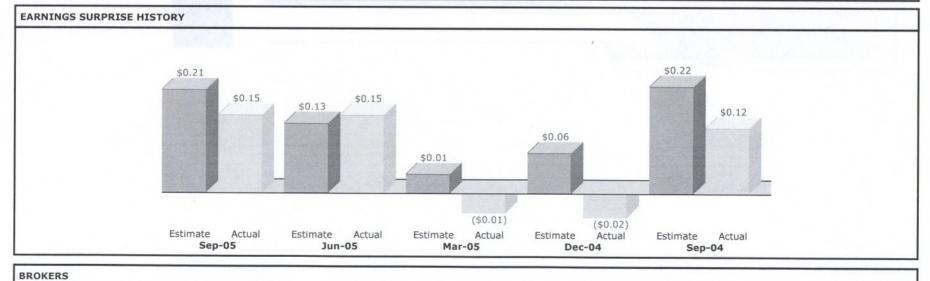
# **Earnings Estimates**

Analyst Estimates					<b>Current Estimates</b>		
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06		\$0.41	\$0.45
Current Average Estimate	0.08	0.06	0.41	0.45	,		
High	0.12	0.06	0.54	0.51	\$0.15		
Low	0.06	0.06	0.35	0.40	\$0.08 \$0.	06	
# of Analysts	3	1	4	3			
Year ago actual	(0.02)	(0.01)	0.24	-			
EPS growth (year-over-year)	516.67%	700.00%	71.88%	9.90%	Actual This Ne Last qtr qtr q		Next year

ANALYST RECOMMEND	DATIONS - SOUTH	WEST WATER (	swwc)				
Recommendation	n History				<b>Current Recommendations</b>		
	Current	1-month	2-month	3-month	Number of brokers		
Strong Buy	2	2	2	1	Strong Buy	2	

1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	2	2	2	2.5	Consensus	2		
			Avei	age Reco	ommendation			
Strong Sell	0	0	0	0	Strong Sell	0		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	2	2	2	2	Hold		2	
Mod Buy	0	0	0	0	Mod Buy	0		

EPS TRENDS / GROWTI	H /									
Consensus EPS To	rend					<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term	,	Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5 years
Current	0.08	0.06	0.41	0.45	5.50%	swwc	27.00%	6.10%	9.10%	-
7 Days Ago	0.08	0.06	0.41	0.45	5.50%	UTIL-WATER SPL	7.10%	18.30%	7.80%	6.30%
1 Month Ago	0.09	0.11	0.42	0.47	5.50%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.09	0.11	0.42	0.47	5.50%					
3 Months Ago	0.07	0.11	0.38	0.47	5.50%					





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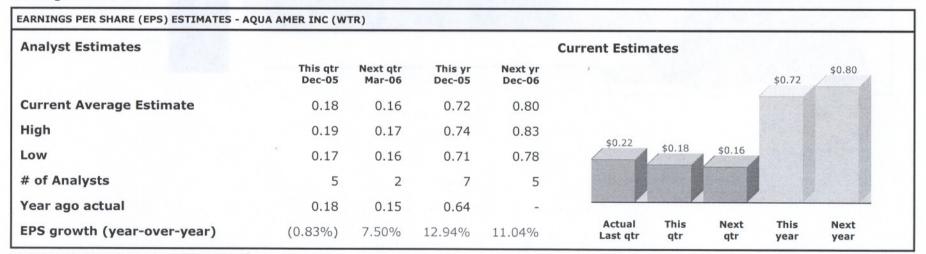
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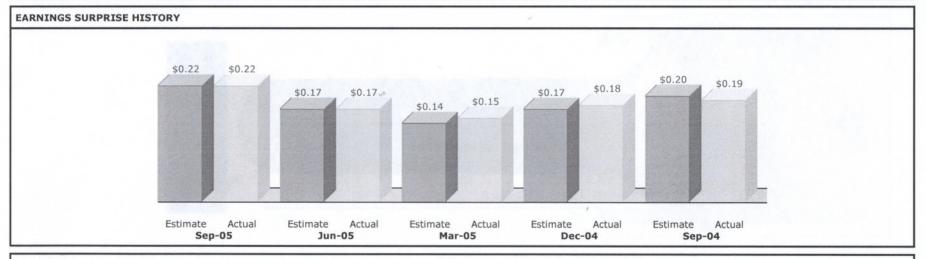
#### **Earnings Estimates**



ANALYST RECOMMENDATIONS - AQUA AMER INC (WTR)

**Recommendation History** 

1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	2.43	2.43	2.43	2.43	Consensus		2.43	
			Av	erage Reco	ommendation			
Strong Sell	0	0	0	0	Strong Sell	0		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	5	5	5	4	Hold			5
Mod Buy	0	0	0	0	Mod Buy	0		
Strong Buy	2	2	2	2	Strong Buy		2	
	Current	1-month	2-month	3-month	Number of brokers			



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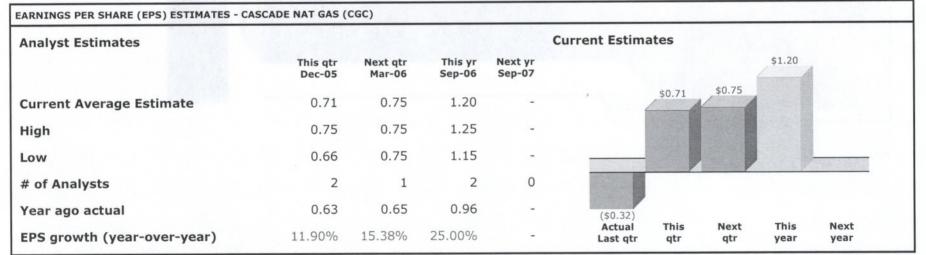
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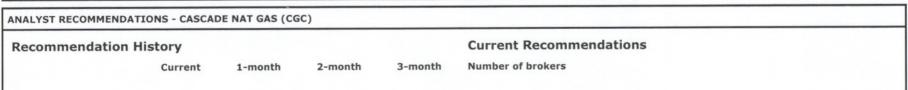
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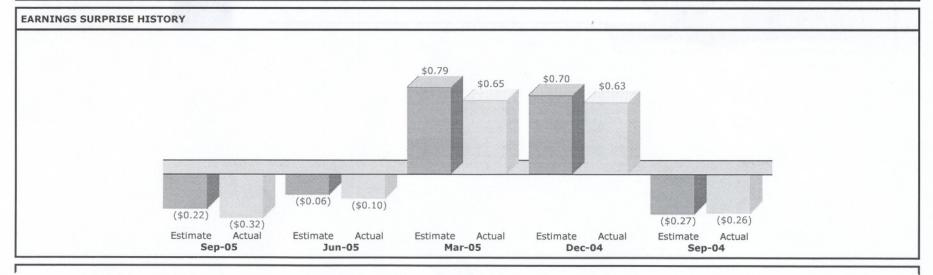
#### **Earnings Estimates**





1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	3	3	3	3	Consensus		3	
			Aver	age Reco	mmendation			
Strong Sell	0	0	0	0	Strong Sell	0		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	2	2	2	2	Hold		2	
Mod Buy	0	0	0	0	Mod Buy	0		
Strong Buy	0	0	0	0	Strong Buy	0		

Consensus EPS T	rend					<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07	Long Term		Last 5 years	This yr (Sep-06)	Next yr (Sep-07)	Next 5
Current	0.71	0.75	1.20	And the restaurable to the	6.00%	CGC	11.80%	4.50%	5.50%	4.10%
7 Days Ago	0.71	0.75	1.20	45	6.00%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.70	0.73	1.20	-	6.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.65	0.73	1.20	-	6.00%					
3 Months Ago	_	_	1.25		6.00%					



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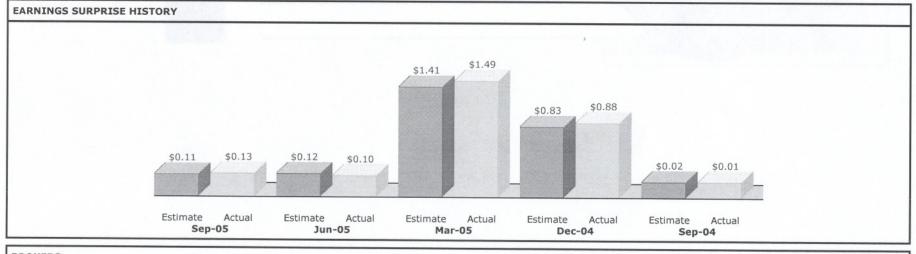
# **Earnings Estimates**

Analyst Estimates					<b>Current Estimates</b>		
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06		\$2.5	35 \$2.32
Current Average Estimate	0.67	1.45	2.35	2.32		\$1.45	
High	0.74	1.45	2.38	2.45	\$0.67		
Low	0.61	1.45	2.32	2.09	\$0.13	Bir (6)	
# of Analysts	7	1	9	8			
Year ago actual	0.88	1.49	2.77	-			<u> </u>
EPS growth (year-over-year)	(23.54%)	(2.68%)	(15.08%)	(1.53%)	Actual This Last qtr qtr	Next Th	

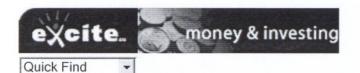
ANALYST RECOMMEND	ATIONS - KEYSP	N CORP (KSE)					
Recommendation	History				Current Recomm	endations	
	Current	1-month	2-month	3-month	Number of brokers		
Strong Buy	1	1	1	1	Strong Buy	1	

1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	2.82	2.82	2.82	2.82	Consensus		2.82	
			Ave	erage Reco	ommendation			
Strong Sell	0	0	0	0	Strong Sell	0		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	9	9	9	9	Hold			9
Mod Buy	0	0	0	0	Mod Buy	0		

Consensus EPS T	rend				Earnings Growth Rate						
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5 years	
Current	0.67	1.45	2.35	2.32	3.17%	KSE	4.60%	13.60%	9.10%	9.40%	
7 Days Ago	0.67	1.45	2.35	2.32	3.17%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%	
1 Month Ago	0.70	1.45	2.37	2.35	2.75%	S&P 500	8.40%	(4.00%)	13.30%	17.50%	
2 Months Ago	0.72	1.47	2.37	2.45	2.75%						
3 Months Ago	0.72	1.47	2.37	2.45	2.75%						



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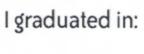
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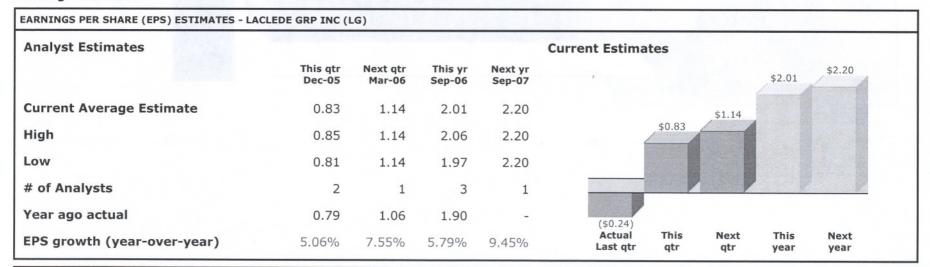
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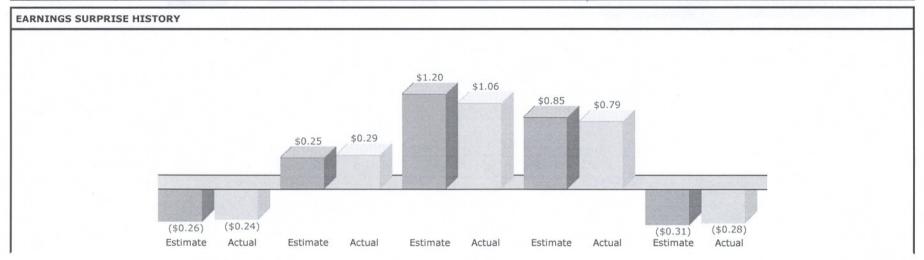
ANALYST RECOMMENDATIONS - LACLEDE GRP INC (LG)

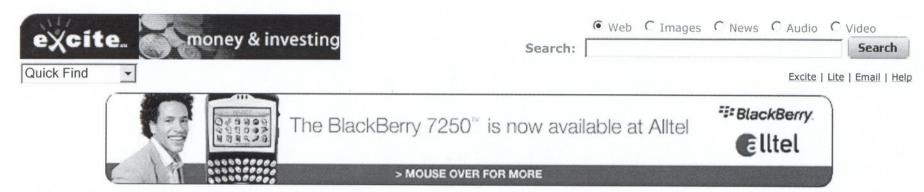
**Recommendation History** 

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	Current	1-month	2-month	3-month	Number of brokers			
Strong Buy	1	1	1	1	Strong Buy		1	
Mod Buy	0	0	0	0	Mod Buy	0		
Hold	2	2	2	2	Hold		2	
Mod Sell	0	0	0	0	Mod Sell	0		
Strong Sell	0	0	0	0	Strong Sell	0		
			Av	erage Reco	ommendation			
Consensus	2.33	2.33	2.33	2.33	Consensus		2.33	
1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sel

Consensus EPS T	rend					Earnings Growth Rate				
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07	Long Term		Last 5 years	This yr (Sep-06)	Next yr (Sep-07)	Next 5 years
Current	0.83	1.14	2.01	2.20	5.00%	LG	(2.30%)	34.80%	3.50%	3.50%
7 Days Ago	0.85	- 1	2.01	***	5.00%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.85		2.01	-	5.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	-	-	2.01	-	5.00%					
3 Months Ago	-	-	2.00	-	5.00%					





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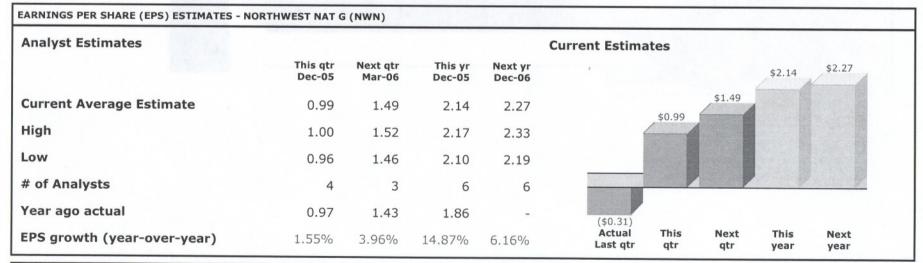
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ANALYST RECOMMENDATIONS - NORTHWEST NAT G (NWN)

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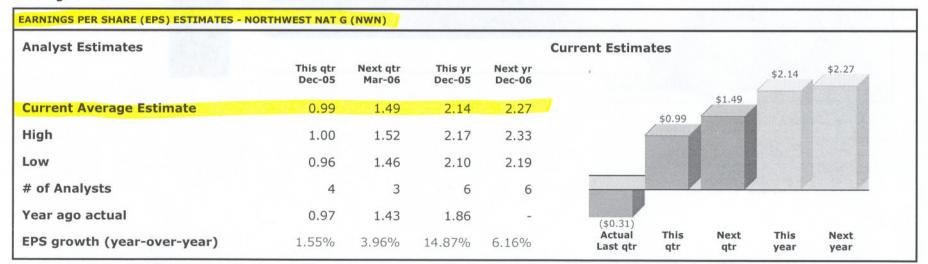
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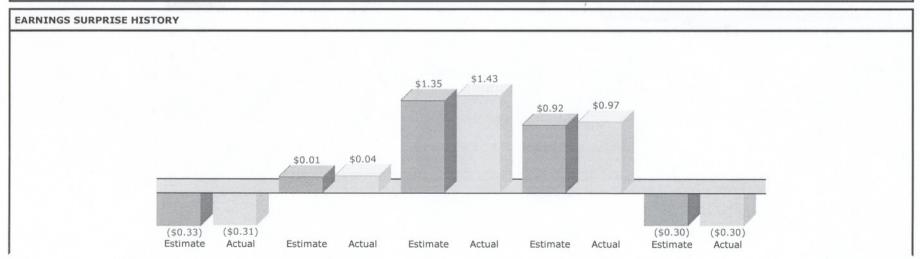


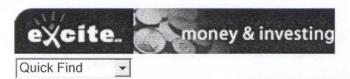
ANALYST RECOMMENDATIONS - NORTHWEST NAT G (NWN)

**Recommendation History** 

1-Strong Buy,5-Strong Sell						Strong Buy	Strong Sel
Consensus	2.5	2.5	2.5	2.5	Consensus	2.5	
			Av	erage Reco	ommendation		
Strong Sell	0	0	0	0	Strong Sell	0	
Mod Sell	0	0	0	0	Mod Sell	0	
Hold	4	4	4	4	Hold		4
Mod Buy	1	1	1	1	Mod Buy	1	
Strong Buy	1	1	1	1	Strong Buy	1	
	Current	1-month	2-month	3-month	Number of brokers		

Consensus EPS To	rend					Earnings Growth Rate				
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5
Current	0.99	1.49	2.14	2.27	5.30%	NWN	1.20%	(5.40%)	7.60%	5.80%
7 Days Ago	0.99	1.49	2.14	2.27	5.30%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.99	1.49	2.14	2.27	5.30%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	1.01	1.47	2.14	2.28	5.30%					
3 Months Ago	1.01	1.47	2.14	2.28	5.30%					





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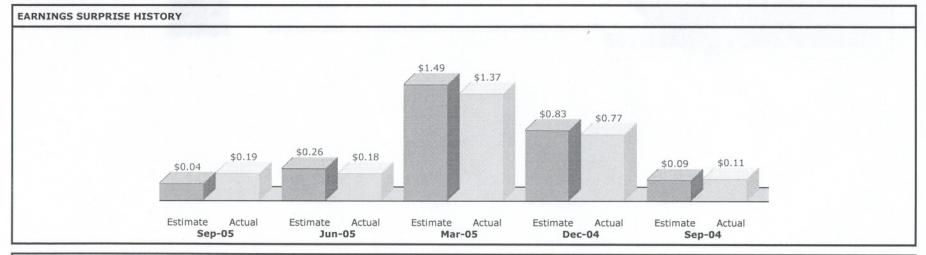
# **Earnings Estimates**

Analyst Estimates					<b>Current Estimate</b>	es		
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07			\$2.22	\$2.46
Current Average Estimate	0.66	1.34	2.22	2.46	,	\$1.34		
High	0.70	1.35	2.30	2.80	**			
Low	0.64	1.32	2.15	2.12	\$0.19	1.66		
# of Analysts	3	2	3	3				
Year ago actual	0.77	1.37	2.53	-				
EPS growth (year-over-year)	(13.85%)	(2.55%)	(12.38%)	10.83%		his Next tr qtr	This year	Next year

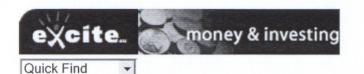
ANALYST RECOMMEND	ATIONS - PEOPL	ENERGY CP (PG	iL)		100000000000000000000000000000000000000		
Recommendation	History				Current Recom	mendations	
	Current	1-month	2-month	3-month	Number of brokers		
Strong Buy	0	0	0	1	Strong Buy	0	

1-Strong Buy,5-Strong Sell						Strong Buy	Stro	ng Sell
Consensus	3.33	3.33	3.33	3	Consensus		3.33	
			Aver	age Reco	ommendation			
Strong Sell	1	1	1	1	Strong Sell	1		
Mod Sell	0	0	. 0	0	Mod Sell	0		
Hold	4	4	4	3	Hold			4
Mod Buy	0	0	0	0	Mod Buy	0		

EPS TRENDS / GROWTH	1									
Consensus EPS To	end					<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07	Long Term		Last 5 years	This yr (Sep-06)	Next yr (Sep-07)	Next 5
Current	0.66	1.34	2.22	2.46	3.50%	PGL	3.40%	17.90%	4.90%	6.30%
7 Days Ago	0.66	1.34	2.22	2.46	3.50%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.66	1.34	2.22	2.46	4.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.64	1.41	2.23	-	4.00%					
3 Months Ago	0.88	1.42	2.67	-	4.00%					



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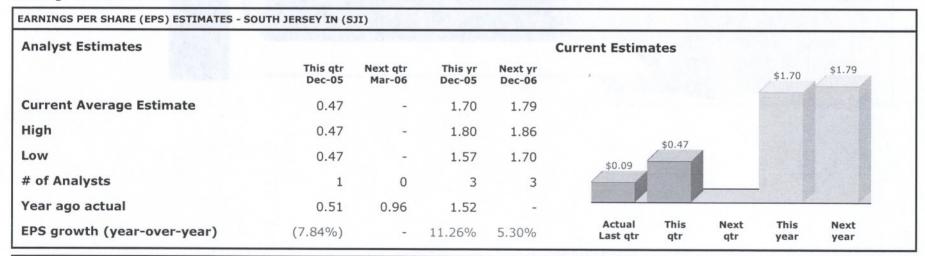
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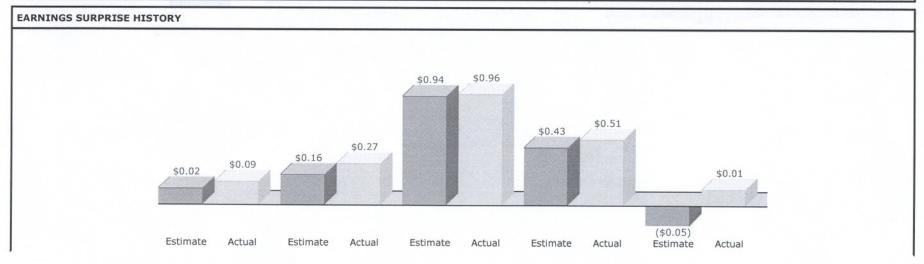


ANALYST RECOMMENDATIONS - SOUTH JERSEY IN (SJI)

Recommendation History

	Current	1-month	2-month	3-month	Number of brokers			
Strong Buy	0	0	0	0	Strong Buy	0		
Mod Buy	1	1	1	1	Mod Buy	1		
Hold	2	2	2	2	Hold		2	
Mod Sell	0	0	0	0	Mod Sell	0		
Strong Sell	0	0	0	0	Strong Sell	0		
			Av	erage Reco	ommendation			
Consensus	2.67	2.67	2.67	2.67	Consensus		2.67	
1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell

EPS TRENDS / GROWTI	н									
Consensus EPS To	rend					<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5 years
Current	0.47	-	1.70	1.79	6.00%	SJI	6.60%	6.60%	2.50%	5.30%
7 Days Ago	0.47	-	1.70	1.79	6.00%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.47	-	1.68	1.79	6.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	_	-	1.68	1.79	6.00%					
3 Months Ago	-	-	1.68	1.79	6.00%					





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# **Earnings Estimates**

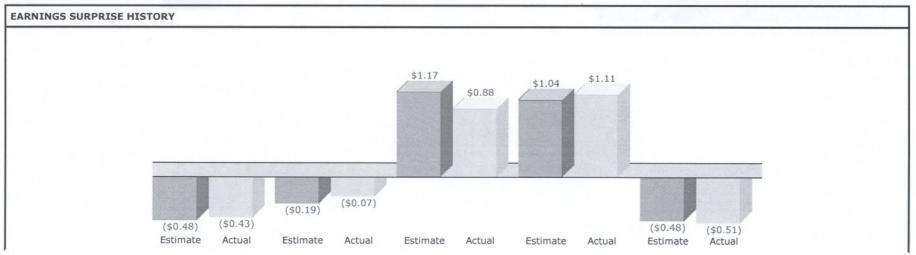
Analyst Estimates	Current Estimates										
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06		\$1.93 \$1.35					
Current Average Estimate	1.04	-	1.35	1.93	\$1.04	\$1.33					
High	1.07	-	1.45	1.95							
Low	1.00	-	1.25	1.90	1						
# of Analysts	2	0	2	2							
Year ago actual	1.11	0.88	1.60	-	(\$0.43)						
EPS growth (year-over-year)	(6.76%)	_	(15.63%)	42.59%	Actual This No	ext This Next tr year year					

ANALYST RECOMMENDATIONS - SOUTHWEST GAS (SWX)

**Recommendation History** 

	Current	1-month	2-month	3-month	Number of brokers			
Strong Buy	0	0	0	0	Strong Buy	0		
Mod Buy	0	0	0	0	Mod Buy	0		
Hold	2	2	2	2	Hold		2	
Mod Sell	0	0	0	0	Mod Sell	0		
Strong Sell	0	0	0	0	Strong Sell	0		
			Av	erage Rec	ommendation			
Consensus	3	3	3	3	Consensus		3	
1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell

EPS TRENDS / GROWTH	1					,				
Consensus EPS Trend						<b>Earnings Growth Rate</b>				
	This qtr Dec-05	Next qtr Mar-06	This yr Dec-05	Next yr Dec-06	Long Term		Last 5 years	This yr (Dec-05)	Next yr (Dec-06)	Next 5 years
Current	1.04		1.35	1.93	6.00%	SWX	7.90%	12.50%	2.20%	4.50%
7 Days Ago	1.04	-	1.35	1.93	6.00%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	1.02	-	1.35	1.93	6.00%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	1.05	-	1.35	1.93	6.00%					
3 Months Ago	1.05	-	1.35	1.93	6.00%					





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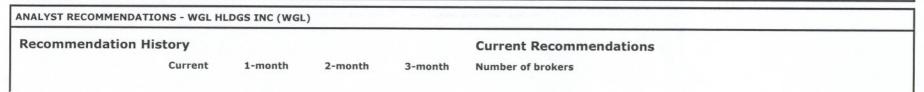
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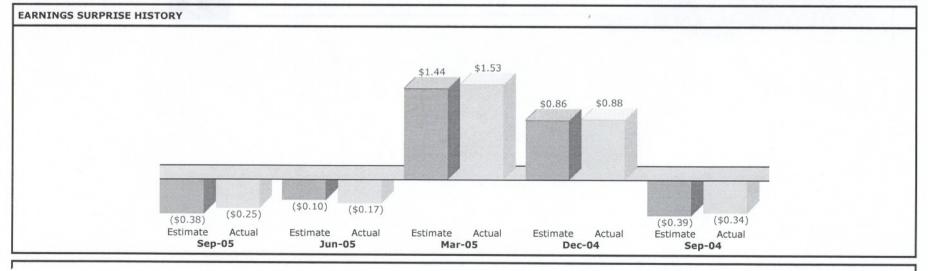
#### **Earnings Estimates**

Analyst Estimates					<b>Current Estimates</b>	
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07		\$1.94 \$2.09
Current Average Estimate	0.85	-	1.94	2.09		
High	0.85	-	2.01	2.09	\$0.85	
Low	0.85	-	1.80	2.09		
# of Analysts	1	0	, 3	1		
Year ago actual	0.88	1.53	1.99	-	(\$0.25)	
EPS growth (year-over-year)	(3.41%)	-	(2.68%)	7.92%	Actual This No	ext This Next tr year year



1-Strong Buy,5-Strong Sell						Strong Buy		Strong Sell
Consensus	3	3	3	3	Consensus		3	
			Aver	age Reco	ommendation			
Strong Sell	1	1	1	1	Strong Sell	1		
Mod Sell	0	0	0	0	Mod Sell	0		
Hold	3	5	5	5	Hold			3
Mod Buy	0	0	0	0	Mod Buy	0		
Strong Buy	1	1	1	1	Strong Buy	1		

Consensus EPS T	rend				Earnings Growth Rate					
	This qtr Dec-05	Next qtr Mar-06	This yr Sep-06	Next yr Sep-07	Long Term		Last 5 years	This yr (Sep-06)	Next yr (Sep-07)	Next 5
Current	0.85	-	1.94	2.09	4.00%	WGL	2.50%	15.80%	0.80%	5.30%
7 Days Ago	0.88	1.62	1.97	2.05	3.75%	UTIL-GAS DISTR	4.20%	14.00%	9.20%	8.00%
1 Month Ago	0.88	1.62	1.97	2.05	3.75%	S&P 500	8.40%	(4.00%)	13.30%	17.50%
2 Months Ago	0.89	1.62	1.97	2.05	3.80%					
3 Months Ago	0.90	1.66	1.97	2.10	4.00%					





Infrastructure costs in the Water Utility Industry will continue to rise over the long term. Larger companies will acquire smaller ones in an effort to achieve economies of scale.

Foreign companies had been buying a number of U.S. water utilities, but that trend appears to be waning.

Water utility stocks are ranked to underperform the market over the coming 12 months; however, conservative investors can find attractive riskadjusted choices here.

#### The Need For Consolidation

Long-term trends in the Water Utility Industry indicate that infrastructure costs will steadily rise. Many of the facilities and pipes that now purify and transport drinking water were built about 100 years ago. Ongoing upgrading and replacement are necessary for these old systems to remain in compliance with rules laid out by the Environmental Protection Agency (EPA). The cost of fixing and upgrading these systems is significantly higher than in the past (even adjusting for inflation) because more-expensive materials need to be used for modern construction. Moreover, transportation costs are much higher and should continue to rise, as nearby sources of water are depleted and farther-away bodies of water must be used. Water is quite difficult and expensive to move because it is heavy and cannot be compressed. Also adding to industry costs is the ongoing issuance of guidelines from the EPA that typically require water utilities to comply with more-stringent water-purity standards. Industry sources estimate that about \$140 billion will be needed over the next 20 years to fund necessary water-system infrastructure improve-

Small and mid-sized water companies usually welcome large-scale suitors. Smaller utilities generally lack the funds needed for long-term structural improvements, and might risk being out of compliance with local and federal laws at some point down the road. In an effort to prevent this unpleasant scenario from happening, many of these smaller companies welcome larger utilities that have the capital resources to remain in compliance with the law. The larger company gains greater geographic diversity from its acquisitions, which helps lessen its susceptibility to weather fluctuations that might cause volatility in earnings. Acquirers also benefit from economies of scale in which costs are

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1793.9	1924.7	1994.2	2422.6	2550	2750	Revenues (\$mill)	3500
214.4	2.9.2	265.6	295.3	315	335	Net Profit (\$mill)	415
39.2%	37.8%	37.0%	38.2%	39.0%	39.0%	Income Tax Rate	39.0%
7.0%	6.3%	7.5%	8.7%	6.0%	6.0%	AFUDC % to Net Profit.	6.0%
55.7%	56.6%	56.9%	- 55.9%	53.0%	52.0%	Long-Term Debt Ratio	50.0%
40.0%	39.6%	39.7%	42.0%	45.0%	46.0%	Common Equity Ratio	48.0%
5271.8	5703.3	6188.6	7223.7	7300	7900	Total Capital (\$mill)	9300
6377.2	6785.5	7361.9	8961.3	8700	9300	Net Plant (\$mill)	9700
6.0%	6.2%	6.2%	6.0%	6.5%	7.0%	Return on Total Cap'l .	7.5%
9.2%	9.7%	10.0%	9.3%	10.5%	10.5%	Return on Shr. Equity .	11.5%
9.7%	10.2%	10.4%	9.5%	11.0%	11.0%	Return on Com Equity	12.0%
3.3%	3.6%	3.9%	3.2%	3.5%	3.5%	Retained to Com Eq	4.5%
68%	66%	64%	67%	70%	70%	All Div'ds to Net Prof	60%
14.5	15.8	18.3	20.2	Bold &		Avg Ann'l P/E Ratio	13.0
.91	.91	95	1.15	Valu	gures are e Line	Relative P/E Ratio	.85
4.6%	4.1%	3.4%	3.3%	esti	mates	Avg Ann'l Div'd Yield	5.0%

#### INDUSTRY TIMELINESS: 81 (of 92)

generally reduced. Too, the regulatory-intensive nature of the Water Utility Industry means that some specific local governments might be more uncooperative with the utilities than other comparable local officials. A larger territory lessens the impact of a particularly onerous regulatory atmosphere.

Acquisition Update

Foreign companies have purchased a large number of domestic water utilities over the past year. These global water companies are attracted to this country's relatively safe political climate and its trend towards the privatization of municipal water and wastewater systems. Currently, there is concern among investors that the large premiums paid for U.S. takeover targets, which approached three times book value, will become more infrequent. British utilities are having regulatory difficulties at home that stand to weaken their designs on the U.S. market. Consequently, there appear to be fewer bidders in the market.

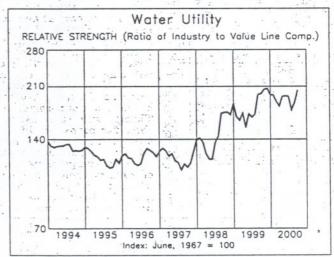
SDWA Regulations

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorized the EPA to work with state and local governments to test for five potential impurities in drinking water every five years. The EPA mandates what levels of a certain contaminant is acceptable per a specified amount of water. Water utilities typically spend about 15% to 50% of their annual capital outlays in efforts to comply with SDWA guidelines. These companies must also stay in compliance with the Clean Water Act, and numerous state and local laws. At present, the EPA is considering lowering the allowable level of arsenic in drinking water from 50 parts per billion (ppb) to 5 ppb. This measure would be controversial because it would be lower than the standard of the World Health Organization (10 ppb) and would potentially cost domestic water companies billions of dollars.

#### Investment Advice

Most of the water utility stocks that are covered in this review are not timely for the coming six to 12 months. Nonetheless, favorable Safety ranks among the group make some of these issues appealing for risk-averse investors seeking decent dividend yields.

Joseph Espaillat



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The events of September 11th have altered many priorities in the Water Utility Industry.

Long-term trends in the industry indicate that the cost of maintaining and upgrading water/wastewater systems will rise. The industry is consolidating, with larger companies acquiring smaller operators to achieve economies of scale.

Water Utility stocks are ranked to underperform the year-ahead market, though some of these issues offer conservative investors appealing riskadjusted, total-return potential.

#### Security Issues

In response to the events of September 11th, the need to secure water systems against terrorism has become a top priority for regulators and water utilities alike, pushing many other legislative issues to the side. The FBI has stated that water companies should be on alert for potential threats in the months ahead. Many water companies are already heeding this warning, and incurring additional costs in the process that may limit near-term bottom-line growth. Also, the industry and regulators are working together to provide approximately \$5 billion in federal funds for immediate infrastructure improvements as part of the pending economic stimulus legislation.

#### Industry Consolidation

Infrastructure costs in the Water Utility Industry will likely rise dramatically over the next 20 years. These companies have to maintain and upgrade their systems continually in order to remain in compliance with increasingly stringent rules issued by the Environmental Protection Agency (EPA) and local regulators. Many of the facilities and pipes that now treat and transport drinking water were built about a century ago. The costs of replacing those systems are significantly higher these days, even adjusting for inflation. Adding to the cost is the fact that nearby bodies of water tend to get depleted and expensive to use, so more-distant sources of water must be brought in to keep up with increasing demand for purified water. Water is difficult and costly to transport, since it is heavy and incompressible. All in all, industry sources estimate that over \$140 billion will be needed to upgrade the nation's water-distribution system over the next 20 years.

The costs of staying in compliance with drinking water laws are especially onerous for smaller regional opera-

	er val	Compo	site St	atistics		r Utility Industry	ngarii. Ai Ai Karro
1997	1998	1999	2000	2001	2002	entron, serve	04-06
1439.5 183.2	1503:1	1898.0 232.8	2054.9 254.2	2210 270	2315 295	Revenues (\$mill) Net Profit (\$mill)	2895 410
38.4%	39.1%	39.7%	40.1%	40.0% 6.5%	40.0% 6.5%	Income Tax Rate AFUDC % to Net Profit	,40.0% 7.5%
57.3% 40.0%	58.0%	56.2% 41.9%	. 54.9%.	54.5% 44.5%	54.0% 45.0%	Long-Term Debt Ratio	53.0%
4113.2 5069.2 6.5%	4524.6 5544.7	5566.3 7039.7 6.2%	5654.6 7545.4	- 6055 7975	8335 8425	Total Capital (\$mill)	7495 9935
10.4%	6.3% 10.2% 10.5%	9.6%	6.6% 9.8% 9.9%	6.0% f0.5% 10.5%	6.0% 11.0% 11.0%	Return on Total Cap'l Return on Shr. Equity Return on Com Equity	6.5% 11.5% 11.5%
4.7%	4.4%	4.1%	4.0% 61%	4.5% 60%	4.5% 59%	Retained to Com Eq All Div'ds to Net Prof	5.0% 52%
.88 3.7%	19.4 1.01 3.0%	19.2 1.09 3.0%	16.3 1.08 3.7%	Valu	gures are le Line mates	Avg Ann'l P/E Ratio Relative P/E Ratio Avg Ann'l Div'd Yield	13.5 .90 3.0%

#### INDUSTRY TIMELINESS: 85 (of 97)

tors, since they have a limited base of customers over which to spread these costs. Small and mid-sized utilities generally welcome takeover offers from larger acquirers because of their superior capital resources. The acquiring utility attempts to achieve economies of scale through the transactions. Also, it gains greater geographic diversity, and that can reduce its susceptibility to unfavorable weather patterns and potentially burdensome local regulators.

Large-scale foreign acquirers have been very interested in purchasing domestic water utilities over the past few years, and the latest evidence is the generous takeover offer RWE AG made for American Water Works, the nation's largest public water company. RWE, a Germany-based firm, stands to gain cost synergies in the deal, along with geographic diversity in a politically stable country. Foreign utilities have been fascinated with the risk-adjusted earnings potential of U.S. water companies, and they are likely to continuing their buying spree over the next few years. As such, the number of investor-owned water providers with large territories is steadily dwindling. This development gives additional hope to those U.S. water utilities and investors looking for substantial buyout offers.

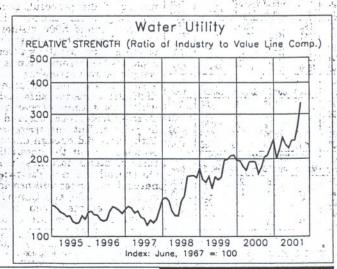
#### **SDWA Regulations**

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorizes the EPA to work with state and local governments to test for five potential impurities in drinking water every five years. The EPA mandates what levels of a certain contaminant is acceptable per a specified amount of water. Water utilities usually spend a significant portion of their annual capital budgets on efforts to stay in compliance with SDWA guidelines. These companies must also comply with the Clean Water Act, and numerous state and local laws.

#### Investment Advice

The Water Utility stocks in this review are not timely for investment over the next six to 12 months. Nonetheless, a few of these issues possess favorable Safety ranks and solid dividend-growth prospects that may appeal to conservative investors.

Joseph Espaillat



Infrastructure costs in the Water Utility Industry will rise considerably over the coming 20 years. Consequently, larger companies are buying smaller ones in an attempt to achieve economies of scale.

Water utility stocks are ranked to perform in the middle of the pack over the coming 12 months. Nonetheless, conservative investors can find above-average Safety ranks and attractive dividends in the group.

#### **Industry Consolidation**

Infrastructure costs in the water utility industry will likely soar over the next two decades. These companies must constantly repair and upgrade their existing water/wastewater systems in order to comply with increasingly strict rules issued by the Environmental Protection Agency (EPA) and local regulators. Many of the facilities and pipes that transport water were constructed over 100 years ago. The costs of replacing these systems is considerably higher now than it was in the past, even adjusting for inflation. Too, the ongoing depletion of nearby sources of water forces many water utilities to obtain water from more-distant, moreexpensive sources. Water is difficult and costly to transport because it is heavy and incompressible. Nonetheless, utilities must continue to keep pace with rising demand for drinking water from growing residential and industrial customers. Recent estimates are that it will cost hundreds of billions of dollars to replace and upgrade failing water infrastructures over the next 20 years. This amounts to more than the entire current assets of the water industry in America. Much of these costs will likely be financed by federal spending and higher water rates. Nevertheless, water utilities are going to have to ante up much higher capital investments over the coming years.

The costs of staying in compliance with drinking water laws are especially onerous for smaller regional companies because they have fewer customers over which to spread their costs. Small and mid-sized water utilities tend to welcome takeover offers from larger, bettercapitalized companies so that they can utilize the bigger firm's superior resources. For instance, the EPA's new rules on the allowable levels of arsenic in drinking water (10 parts per billion by January, 2006) is compelling some smaller utilities to merge with larger ones in an effort to remain in compliance with the new standards. By purchasing these smaller entities, large utilities seek

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	(	Compo	site Sta	atistics:	Water	Utility Industry	
1998	1999	2000	2001	2002	2003		05-07
1503.1	1898.0	2054.9	2190.5	2495	. 2710	Revenues (\$mill)	3360
192.9	232.8	249.7	261.8	275	315	Net Profit (\$mill)	465
39.1%	39.7%	40.1%	39.5%	41.5%	40.0%	Income Tax Rate	40.0%
7.9%	9.6%	5.5%	3.4%	2.0%	2.0%	AFUDC % to Net Profit	3.0%
58.0%	56.2%	:54.9%	56.7%	57.0%	56.0%	Long-Term Debt Ratio	52.5%
39.6%	41.9%	44.0%	42.4%	42.0%	43.0%	Common Equity Ratio	47.0%
4524.6	5566.3	5654.6	6198.1	7005	7085	Total Capital (\$mill)	8780
5544.7	7039.7	7545.4	7991.2	9210	9940	Net Plant (\$mill)	12085
6.3%	6.2%	6.6%	6.3%	6.0%	6.5%	Return on Total Cap'l	7.0%
10.2%	9.6%	9.8%	9.8%	10.0%	10.5%	Return on Shr. Equity	11.5%
10.5%	9.8%	9.9%	9.9%	10.0%	10.5%	Return on Com Equity	11.5%
4.4%	4.1%	4.0%	3.9%	3.0%	4.5%	Retained to Com Eq	5.0%
. 59%	59%	60%	61%	61%	58%	All Div'ds to Net Prof	47%
- 19.4	19.2	- 16.3	20.9			Avg Ann'l P/E Ratio.	13.5
1.01	1.09	1.06	1.07	. Valu	jures are e Line	Relative P/E Ratio	.90
3.0%	3.0%	3.7%	2.9%	esti	nates	Avg Ann'l Div'd Yield	3.0%

#### INDUSTRY TIMELINESS: 54 (of 98)

to achieve economies of scale. Also, a bigger company gains greater geographic diversity that can reduce its susceptibility to unfavorable weather patterns and potentially burdensome local regulators. For example, the regulatory climate in California has been extra costly for utilities in the past couple of years, so companies, such as California Water, have been actively looking for acquisition targets outside of the state. On a positive note, the passage of a new law in California will allow water utilities to charge higher rates to customers (subject to refund) if regulators do not render decisions on rate cases within established processing periods. This ought to improve revenues for three out of four companies in this review.

#### Recent Challenges

The events of September 11, 2001 have introduced a whole new set of challenges for the industry. Companies have been spending a lot of time, energy, and money on making sure that their water systems are reasonably secure from potential terrorist attacks. Utilities have turned to local and federal regulators for reimbursement and additional funding, but the amount and timing of future funds is uncertain. Also, insurance costs have soared in the past year, as insurers are now more reluctant to cover companies, like water utilities, that can potentially have catastrophic losses.

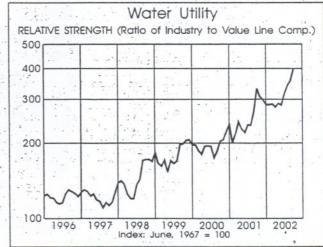
#### **SDWA** Regulations

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorizes the EPA to work with state and local governments to test for potential impurities in drinking water. The EPA mandates what particular level of a certain contaminant is acceptable per a specified amount of water. Water utilities routinely spend large portions of their annual capital expenditures on efforts to remain in compliance with SDWA guidelines. These companies must also comply with the 1972 Clean Water Act, and numerous other state and local laws, another costly endeavor.

#### **Decent Grounds For Conservative Investors**

The water-utility stocks in this review are unlikely to outperform the year-ahead market. Nonetheless, they offer above-average Safety ranks, attractive dividend yields, and decent risk-adjusted total-return potential.

Joseph Espaillat



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The Water Utility Industry's consolidation continues to gain momentum, as industry leaders look for opportunities to buy out smaller companies that are struggling to keep up with escalating infrastructure costs and heightened regulatory requirements.

Water Utility stocks are unlikely to outperform the broad market for the year ahead. With that said, however, some of these issues offer conservative investors attractive risk-adjusted, totalreturn potential.

#### **Government Regulations**

In order to keep water supplies safe, national purification standards have been established that the water industry is required to meet. Amended in 1996, the Safe Drinking Water Act (SDWA) of 1974 authorizes the Environmental Protection Agency (EPA) to work with state and local governments to periodically test for impurities in drinking water and regulate the levels of contaminants that are acceptable per a specified amount of water. These standards take into account the health effects of chemicals, measurement capabilities, and technical feasibility. One of the most significant contaminants that the industry screens for is arsenic, a naturally occurring substance. However, the EPA is in the process of lowering the tolerated amount of arsenic to 10 parts per billion from 20 parts currently. The change is expected to be in effect by January, 2006. Large chunks of water utilities' annual capital budgets are already spent on infrastructure maintenance and improvements in order to stay in compliance with the SDWA, the Clean Water Act, and numerous state and local laws. This percentage is likely to climb even higher, as fears of terrorism have prompted officials to further tighten regulation requirements.

#### **Rising Infrastructure Costs**

Along with the necessity to remain in compliance with increasingly strict water purity standards, water companies are also being pressured to continually upgrade aging facilities. Many of the water/wastewater systems that are presently in use were built over 100 years ago and are growing outdated. The costs associated with replacing these systems are dramatically higher now than when they initially were put in place. The EPA and other industry sources indicate that hundreds of billions

	(	Compo	site Sta	atistics	: Wate	r Utility Industry	
1999	2000	2001	2002	2003	2004		06-08
637.2	704.3	751.8	794.4	845	950	Revenues (\$mill)	1185
72.4	90.9	95.4	106.6	105	130	Net Profit (\$mill)	190
40.0%	41.2%	40.2%	38.8%	39.0%	39.5%	Income Tax Rate	40.0%
				Nil	.5%	AFUDC % to Net Profit	.5%
51.1%	50.3%	52.4%	53.9%	53.0%	51.5%	Long-Term Debt Ratio	51.0%
48.3%	49.3%	47.2%	45.9%	46.5%	48.5%	Common Equity Ratio	49.0%
1444.7	1661.0	1840.7	1973.6	2250	2425	Total Capital (\$mill)	3050
2100.3	2342.5	2532.3	2751.1	3025	3225	Net Plant (\$mill)	3950
7.4%	7.0%	6.8%	7.0%	6.5%	7.0%	Return on Total Cap'l	7.5%
11.5%	10.7%	10.6%	11.2%	10.0%	10.5%	Return on Shr. Equity	12.0%
11.5%	10.8%	10.7%	11.2%	10.0%	11.0%	Return on Com Equity	12.0%
3.8%	3.6%	3.3%	3.9%	3.0%	4.0%	Retained to Com Eq	5.5%
68%	67%	69%	66%	75%	65%	All Div'ds to Net Prof	54%
19.5	18.6	22.6	21.5	D-1-1-6		Avg Ann'l P/E Ratio	13.5
1.11	1.21	1.16	1.17	Valu	gures are e Line	Relative P/E Ratio	.90
3.5%	3.6%	3.1%	3.1%	esti	mates	Avg Ann'l Div'd Yield	3.0%

#### **INDUSTRY TIMELINESS: 97 (of 98)**

of dollars over the next 20 years will be needed to repair the nation's entire water system. The Water Infrastructure Network believes that there will be a \$12 billion annual shortfall for wastewater infrastructure over that period, and long-term help from the federal government is needed to solve the problem. Water companies will most likely foot the majority of the bill, though, as budget deficits at state and local levels will limit funds dedicated to the industry.

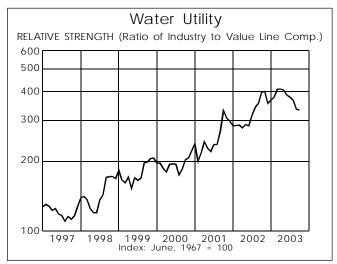
#### **Industry Consolidation**

With the costs of meeting safe drinking water guidelines on the rise, many smaller companies lack the funds to commit to long-term structural improvements. As such, these smaller water companies have been increasingly willing to accept takeover offers from larger suitors with significantly greater capital resources. The larger utilities benefit from economies of scale, which enables them to reduce overhead. In addition, the acquisitions usually enhance geographic diversity, reducing a company's vulnerability to weather fluctuations. Then, too, a multistate territory helps to alleviate a company's exposure to especially onerous regulatory atmospheres. Large foreign utilities have been particularly active in recent years, swallowing up domestic water companies in an effort to gain exposure to the United States' steady population growth.

#### **Investment Advice**

None of the stocks under review are timely at this juncture, as poor weather conditions have resulted in inconsistent earnings patterns. Although *Philadelphia Suburban, California Water Services Group, and American States Water* all have below-average total-return potential out to 2006-2008, income-oriented investors might may find one of these stocks attractive, given their favorable risk profile. Income-bearing stocks have gained some additional popularity of late, because of the recent federal tax bill that reduced the top rate investors pay on dividend income to 15%. As usual, though, we recommend that potential investors careful review individual reports before making any new commitments.

Andre J. Costanza



The Water Utility industry continues to rank near the bottom of the *Value Line* investment universe. Infrastructure costs will limit earnings for at least the near future, as the high expenses associated with maintaining and improving the country's water-distribution systems continue to rise.

However, it appears that relief is on the way for some companies. Favorable regulatory rate case rulings have been handed down across the country and look as though they might become the norm.

Meanwhile, consolidation remains the name of the game. Although many of the industry's smaller players lack the capital requirements to meet growing government regulations, larger companies are using the consolidation as way to boost profitability via growing its customer base.

#### **Infrastructure Costs**

Infrastructure costs continue to climb higher as water utility companies, with little help from strapped government branches, are forced to deal with maintaining and upgrading existing facilities. Costs are becoming an even greater concern as time passes because a number of the functioning systems currently in place are over 100 years old and in need of significant repair. That said, we believe that it will take hundreds of billions of dollars to renovate existing pipelines over the next few decades. To make matters worse, the costs of staying in compliance with regulatory laws are growing even more difficult, due to fears of terrorist activities against the country's drinking supplies. Although the Safe Drinking Water Act (SDWA) of 1974 remains the authority for the safety and purity of drinking water, recent amendments are making compliance even more demanding. In 1996, an amendment authorized the Environmental Protection Agency (EPA) to step up local compliance levels. And, governing law-makers now insist that the EPA work with local and state governments to test for impurities in drinking water and to regulate the levels of contaminants that are acceptable.

#### **A Buying Opportunity**

The growing regulations and costs associated with staying in compliance with government standards re-

	(	Compo	site Sta	atistics	Wate	r Utility Industry	
2000	2001	2002	2003	2004	2005		07-09
704.3	751.8	794.4	857.0	990	1075	Revenues (\$mill)	1345
90.9	95.4	106.6	98.6	130	150	Net Profit (\$mill)	205
41.2%	40.2%	38.8%	40.0%	40.0%	40.0%	Income Tax Rate	40.0%
-				Nil	Nil	AFUDC % to Net Profit	Nil
50.3%	52.4%	53.9%	51.2%	51.0%	51.0%	Long-Term Debt Ratio	50.0%
49.3%	47.2%	45.9%	48.6%	49.0%	49.0%	Common Equity Ratio	50.0%
1661.0	1840.7	1973.6	2296.4	2615	2870	Total Capital (\$mill)	3550
2342.5	2532.2	2751.1	3186.1	3400	3605	Net Plant (\$mill)	4150
7.0%	6.8%	7.0%	5.9%	6.5%	7.0%	Return on Total Cap'l	7.0%
10.7%	10.6%	11.2%	8.8%	9.5%	9.5%	Return on Shr. Equity	10.0%
10.8%	10.7%	11.2%	8.8%	9.5%	9.5%	Return on Com Equity	10.0%
3.6%	3.3%	3.8%	2.5%	3.5%	4.0%	Retained to Com Eq	4.5%
67%	69%	66%	72%	62%	58%	All Div'ds to Net Prof	52%
18.6	22.6	21.5	26.0	Dold fi		Avg Ann'l P/E Ratio	18.0
1.21	1.16	1.17	1.49	Valu	jures are e Line	Relative P/E Ratio	1.20
3.6%	3.1%	3.1%	2.8%	esti	mates	Avg Ann'l Div'd Yield	3.5%

#### **INDUSTRY TIMELINESS: 94 (of 98)**

lated to the quality and purification of drinking water is forcing many of the smaller water companies to look to larger suitors. Bigger companies with the market scale to withstand the current onslaught of costs are clearly taking advantage of this situation. Indeed, these firms are growing their businesses at relatively low costs as well as diversifying their operations into less regulated and more-rapidly developing areas of the U.S. *Aqua America* is a perfect example, making nearly 20 acquisitions since the close of last year. *Aqua* recently purchased a number of Pennsylvania-based companies in order to help drive top-line growth. We anticipate that the current consolidation theme will persist, as we expect restructuring costs to continue to rise.

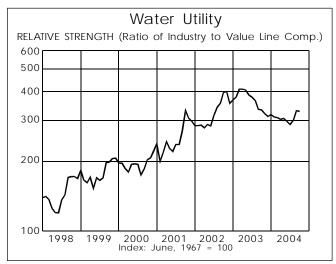
#### **Regulatory Assistance**

Although water utility company's have been forced to deal with lethargic case rulings in the past couple of years, some governing bodies are picking up the pace. In California, for example, the California Public Utilities Commission (CPUC) has handed down a number of favorable rate-relief rulings in recent months, and more are expected. With the California electric crisis seemingly in the rearview mirror, the current administration seems intent on delivering more timely assessments. American States Water Company and California Water Service Group have both seen profits benefit from recent case rulings over the past quarter.

#### **Investment Advice**

Most investors will want to take a pass on the stocks covered in the next few pages, as they offer uninspiring returns out to decade's end. In addition, not one of the stocks in this edition is ranked to outperform the market in the next six to 12 months. Nonetheless, incomeoriented investors may like the industry's solid dividend yields. *California Water* may have some added appeal for the risk-averse, given its above average Safety rank. Still, we advise that potential investors carefully review the individual reports in the ensuing pages before making a commitment to any of the stocks mentioned above.

Andre J. Costanza



After showing some brief signs of a turnaround last year, the Water Utility Industry appears to have reverted back to its old ways. Feeling the effects of uncooperating weather conditions and high infrastructure costs, the stocks in this industry have had trouble meeting earnings expectations and, as a result, have sorely underperformed the broader market in recent months. In fact, none of the water utility stocks that are covered in the next few pages are ranked better than 3 (Average) for Timeliness, based on our momentum based ranking system. As a whole, the industry ranks near the bottom of the Value Line investment universe.

And the future does not look much brighter. Although a more favorable regulatory landscape and normalized weather conditions ought to provide a better landscape, we are concerned that rapidly growing infrastructure costs will continue to undermine this group's earnings out to late decade.

#### **Easing Tensions**

Although designed to keep a balance of power between consumers and providers, regulatory authorities, have long been a thorn in the side of water utility companies. Rate relief case decisions had often been unfavorable and untimely, with some rulings being pushed off for as long as two years. But, it finally looks as though things are taking a turn for the better, especially in the state of California. The California Public Utilities Commission (CPUC), which is responsible for ruling on general rate case requests in the Golden State, has been handing down more-favorable and timely decisions in recent months, thanks, in part, to the efforts of Governor Schwarzenegger. He has replaced members thought to be antagonists of rate relief with more-business-friendly members, and additional moves may be in the works. The recent changes makes for a favorable backdrop for water utility companies operating in California, such as American Štates Water Co. and Čalifornia Water Service Group.

#### **Costs**

But, while regulators are easing their stance on rate case decisions, this does not look to be the case for infrastructure demands. Many of the current infrastruc-

	(	Compo	site Sta	atistics	: Wate	r Utility Industry	
2001	2002	2003	2004	2005	2006		08-10
751.8	794.4	857.0	985.6	1250	1350	Revenues (\$mill)	1725
95.4	106.6	98.6	122.4	155	170	Net Profit (\$mill)	235
40.2%	38.8%	40.0%	39.4%	39.5%	39.5%	Income Tax Rate	39.5%
				Nil	Nil	AFUDC % to Net Profit	Nil
52.4%	53.9%	51.2%	50.0%	52.0%	51.0%	Long-Term Debt Ratio	48.0%
47.2%	45.9%	48.6%	50.0%	48.0%	49.0%	Common Equity Ratio	52.0%
1840.7	1973.6	2296.4	2543.6	3000	3400	Total Capital (\$mill)	4100
2532.2	2751.1	3186.1	3532.5	4050	4250	Net Plant (\$mill)	5000
6.8%	7.0%	5.9%	6.7%	7.0%	7.5%	Return on Total Cap'l	7.0%
10.6%	11.2%	8.8%	10.7%	11.0%	11.0%	Return on Shr. Equity	11.5%
10.7%	11.2%	8.8%	10.7%	11.0%	11.0%	Return on Com Equity	11.5%
3.3%	3.8%	2.5%	4.6%	5.0%	5.0%	Retained to Com Eq	3.0%
69%	66%	72%	57%	60%	55%	All Div'ds to Net Prof	45%
22.6	21.5	26.0	25.5	Dold Si		Avg Ann'l P/E Ratio	18.0
1.16	1.17	1.48	1.36	Valu	gures are e Line	Relative P/E Ratio	1.20
3.1%	3.1%	2.8%	2.2%	esti	mates	Avg Ann'l Div'd Yield	3.4%

#### **INDUSTRY TIMELINESS: 93 (of 98)**

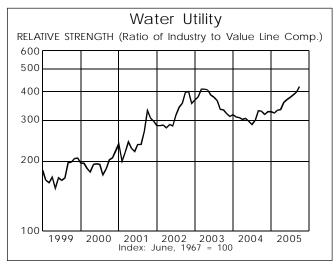
tures are upwards of 100 years old and are in severe need of maintenance and, in some cases, massive renovations and rebuilding. And, given the geopolitical volatility worldwide and the heightened threat of bioterrorism on U.S. water pipelines and reservoirs, these costs are likely to continue to only rise, as companies strive to comply with EPA water purification standards. Infrastructure repair costs are expected to climb in the hundreds of millions of dollars over the next two decades, putting many smaller water companies at a distinct disadvantage. With a dearth of resources to fund these improvements, many such companies are being forced to sell. But, given the current landscape, larger companies with the flexibility and capital to deal with the higher costs are utilizing the weakness to add additional legs of growth to their businesses. Aqua America, the largest water utility in our survey, for example, has made more than 90 acquisitions in the past five years, doubling its revenue base during that time. The company does not seem to be slowing its aggressive spending ways and has the highest return on equity of any of the stocks that we cover here.

#### **Investment Advice**

Most investors will probably want to take a pass on the stocks in this industry. Typically market laggards, not one of the issues covered in the next few pages stands out for near-term or long-term capital gains potential. The limited financial resources of most of these companies, along with the capital-intensive nature of the industry, will probably limit any substantial growth out to late decade.

Those seeking to add an income component to their portfolio may find an attractive option here, though. Each of the stocks in this industry carries an above-average dividend yield, with *American States Water* and *California Water* offering the highest percentages. *California Water* offers some additional appeal, as it has a 2 (Above Average) Safety rank. As is always the case, we recommend that all potential investors take a more in depth look at the individual reports on the following pages before considering making any future financial commitments.

Andre J. Costanza





# Selected Yields

	Recent (12/29/05)	3 Months Ago (9/29/05)	Year Ago (12/29/04)		Recent (12/29/05)	3 Months Ago (9/29/05)	Year Ago (12/29/04
TAXABLE							
Market Rates				Mortgage-Backed Securities			
Discount Rate	5.25	4.75	3.25	GNMA 6.5%	5.36	5.20	4.49
Fed Funds (Target)	4.25	3.75	2.25	FHLMC 6.5% (Gold)	5.83	5.57	4.28
Prime Rate	7.25	6.75	5.25	FNMA 6.5%	5.75	5.20	4.25
30-day CP (A1/P1)	4.27	3.76	2.30	FNMA ARM	4.25	3.85	3.00
3-month LIBOR	4.53	4.05	2.56	Corporate Bonds			
Bank CDs				Financial (10-year) A	5.31	5.15	5.24
6-month	2.86	2.21	1.65	Industrial (25/30-year) A	5.51	5.46	5.59
1-year	3.39	2.66	1.96	Utility (25/30-year) A	5.53	5.45	5.57
5-year	3.97	3.45	3.45	Utility (25/30-year) Baa/BBB	5.91	5.79	6.03
U.S. Treasury Securities				Foreign Bonds (10-Year)			
3-month	3.99	3.53	2.22	Canada	3.96	3.97	4.40
6-month	4.32	3.88	2.59	Germany	3.33	3.16	3.71
1-year	4.34	3.95	2.77	Japan	1.51	1.49	1.43
5-year	4.32	4.15	3.69	United Kingdom	4.12	4.27	4.58
10-year	4.35	4.30	4.32	Preferred Stocks			
10-year (inflation-protected		1.75	1.68	Utility A	7.10	7.06	6.76
30-year	4.51	4.55	4.94	Financial A	6.21	6.17	5.97
30-year Zero	4.46	4.54	5.05	Financial Adjustable A	5.48	5.48	N/A
TD C .	. 37' 11	-		TAX-EXEMPT			
Treasury Securi	ty Yiela	Curve		Bond Buyer Indexes			
5.00%				20-Bond Index (GOs)	4.38	4.39	4.44
				25-Bond Index (Revs)	5.11	5.04	5.00
000				General Obligation Bonds (G	Os)		
.00% -				1-year Aaa	3.20	2.84	2.05
				1-year A	3.32	2.96	2.17
.00%				5-year Aaa	3.38	3.21	2.72
				5-year A	3.66	3.49	2.95
				10-year Aaa	3.76	3.71	3.57
.00% -				10-year A	4.08	4.06	3.87
				25/30-year Aaa	4.39	4.42	4.67
				25/30-year A	4.66	4.67	4.88
.00% -				Revenue Bonds (Revs) (25/3)			
		—Cu	rrent	Education AA	4.53	4.49	4.80
2004		— Ye	ar-Ago	Electric AA	4.55	4.60	4.78
.00% 3 6 1 2 3 5	10	-	30	Housing AA	4.76	4.63	5.05
Mos. Years				Hospital AA	4.89	4.63	5.10
				T II D	4.00	4.00	4.00

# Federal Reserve Data

Toll Road Aaa

4.59

4.60

4.93

#### **BANK RESERVES**

(Two-Week Period; in Millions, Not Seasonally Adjusted)

		Recent Levels	Average Levels Over the Last					
	12/21/05	12/7/05	Change	12 Wks.	26 Wks.	52 Wks.		
Excess Reserves	1746	1634	112	1892	1800	1748		
Borrowed Reserves	259	95	164	229	293	193		
Net Free/Borrowed Reserves	1487	1539	-52	1663	1507	1554		

#### MONEY SUPPLY

(One-Week Period; in Billions, Seasonally Adjusted)

		Recent Levels		Growt	h Rates Over	the Last
	12/19/05	12/12/05	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1365.0	1359.2	5.8	2.0%	-2.1%	-0.5%
M2 (M1+savings+small time deposits)	6691.3	6671.2	20.1	5.7%	5.3%	3.9%
M3 (M2+large time deposits)	10183.7	10148.0	35.7	8.7%	9.3%	7.9%

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# ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT DOCKET NO. W-01303A-05-0405 TABLE OF CONTENTS TO SCHEDULES WAR

## SCHEDULE#

WAR - 1	COST OF CAPITAL SUMMARY
WAR - 2	DCF COST OF EQUITY CAPITAL
WAR - 3	DIVIDEND YIELD CALCULATION
WAR - 4	DIVIDEND GROWTH RATE CALCULATION
WAR - 5	DIVIDEND GROWTH COMPONENTS
WAR - 6	GROWTH RATE COMPARISON
WAR - 7	CAPM COST OF EQUITY CAPITAL
WAR - 8	ECONOMIC INDICATORS - 1990 TO PRESENT
WAR - 9	CAPITAL STRUCTURES OF SAMPLE COMPANIES

#### WEIGHTED COST OF CAPITAL

			(A)	(B) (C) RUCO		(D)	(E)	(F)		
LINE NO.	DESCRIPTION		PITALIZATION R COMPANY		JCO TMENTS		ADJUSTED PITALIZATION	CAPITAL RATIO	COST	WEIGHTED COST
1	DEBT	\$	198,791,428	\$		\$	198,791,428	63.30%	5.42%	3.43%
1	DEBT	Ψ	190,791,420	Ψ	-	Ψ	190,791,420	03.30 /0	J.42 /0	3.4370
2	PREFERRED STOCK		-		-		-	0.00%	0.00%	0.00%
3	COMMON EQUITY		115,410,356				115,410,356	36.70%	10.00%	3.67%
4	TOTAL CAPITALIZATION	\$	314,201,784	\$		\$	314,201,784	100.00%		

#### 5 WEIGHTED COST OF CAPITAL

7.10%

#### REFERENCES:

COLUMN (A): COMPANY SCHEDULE D-1

COLUMN (B): TESTIMONY, WAR

COLUMN (C): COLUMN (A) + COLUMN (B)

COLUMN (D): COLUMN (C) ÷ COLUMN (C), LINE 4

COLUMN (E): LINE 1 - SCHEDULE WAR-1, PAGE 2; LINE 3 - TESTIMONY, WAR

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT **TEST YEAR ENDED DECEMBER 10, 2004 COST OF CAPITAL SUMMARY**

#### DOCKET NO. W-01303A-05-0405 SCHEDULE WAR - 1, PAGE 2 OF 2

#### **WEIGHTED COST OF DEBT**

	(A)	(B)	(C)	(D) END OF	(E)	(F)	(G) TEST YEAR	(H) WEIGHTED
LINE		ISSUANCE	MATURITY	TEST YEAR	ANNUAL	INTEREST	BALANCE	COST OF
<u>NO.</u>	DESCRIPTION	DATE	DATE	BALANCE	INTEREST	RATE	RATIOS	DEBT
1	LONG-TERM SENIOR NOTES	1-Dec-99	15-Aug-08	\$ 4,500,000	\$ 320,490	7.120%	2.26%	0.161%
2	LONG-TERM PROMISSORY NOTES	30-Sep-04	30-Sep-14	25,000,000	1,230,000	4.920%	12.58%	0.619%
3	LONG-TERM PROMISSORY NOTES	6-Nov-01	6-Nov-06	3,500,000	199,850	5.710%	1.76%	0.100%
4	LONG-TERM PROMISSORY NOTES	14-Jan-02	5-Nov-06	154,948,119	8,847,538	5.710%	77.95%	4.451%
5	LONG-TERM NOTE - MARICOPA COUNTY	1-Sep-97	1-Sep-28	10,635,000	163,779	1.540%	5.35%	0.082%
6	PILR - MONTEREY	1-Sep-93	1-Sep-12	64,599	4,044	6.260%	0.03%	0.002%
7	PILR - MONTEREY/LINCOLN	30-Dec-93	1-Aug-13	60,873	4,371	7.180%	0.03%	0.002%
8	PILR - ROSALEE	26-Jun-95	1-Aug-25	49,463	3,551	7.180%	0.02%	0.001%
9	PILR - TO DEVELOPMENT	26-Jul-95	1-Aug-15	33,374	1,922	5.760%	0.02%	0.001%
10								
11	TOTALS			\$ 198,791,428	\$ 10,775,545		100.00%	
12								

13 WEIGHTED COST OF DEBT

5.42%

#### REFERENCES:

COLUMN (A): COMPANY SCHEDULE D-1

COLUMN (B): ACC STAFF DATA REQUEST 3-3

COLUMN (C): ACC STAFF DATA REQUEST 3-3

COLUMN (D): COMPANY SCHEDULE D-1

COLUMN (E): COMPANY SCHEDULE D-1

COLUMN (F): COLUMN (E) ÷ COLUMN (D)

COLUMN (G): LINES 1 THRU 9 ÷ LINE 11

COLUMN (H): COLUMN (F) x COLUMN (G)

#### DOCKET NO. W-01303A-05-0405 SCHEDULE WAR - 2

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DCF COST OF EQUITY CAPITAL

LINE <u>NO.</u>	STOCK SYMBOL	COMPANY	(A) DIVIDEND YIELD	+	(B) GROWTH RATE (g)	=	(C) DCF COST OF EQUITY CAPITAL
1	AWR	AMERICAN STATES WATER CO.	2.87%	+	7.72%	=	10.60%
2	CWT	CALIFORNIA WATER SERVICE GROUP	3.14%	+	6.54%	=	9.68%
3	SWWC	SOUTHWEST WATER COMPANY	1.44%	+	7.09%	=	8.53%
4	WTR	AQUA AMERICA, INC.	1.75%	+	7.45%	=	9.20%
5	WATER COM	PANY AVERAGE					9.50%
6	CGC	CASCADE NATURAL GAS CORPORATION	4.72%	+	2.22%	=	6.94%
7	KSE	KEYSPAN CORP.	5.33%	+	3.34%	=	8.67%
8	LG	LACLEDE GROUP, INC.	4.64%	+	3.35%	=	7.99%
9	NWN	NORTHWEST NATURAL GAS CO.	3.97%	+	5.31%	=	9.28%
10	PGL	PEOPLES ENERGY CORPORATION	5.98%	+	3.64%	=	9.62%
11	SJI	SOUTH JERSEY INDUSTIES, INC.	6.21%	+	7.07%	=	13.28%
12	SWX	SOUTHWEST GAS CORPORATION	3.07%	+	6.51%	=	9.58%
13	WGL	WGL HOLDINGS, INC.	4.37%	+	5.09%	=	9.46%
16	NATURAL GA	AS LDC AVERAGE					9.35%

#### REFERENCES:

COLUMN (A): SCHEDULE WAR - 3, COLUMN C

COLUMN (B): SCHEDULE WAR - 4, PAGE 1, COLUMN C

COLUMN (C): COLUMN (A) + COLUMN (B)

#### DOCKET NO. W-01303A-05-0405 SCHEDULE WAR - 3

			(A) ESTIMATED		(B) AVERAGE		(C)
LINE	STOCK		DIVIDEND		STOCK PRICE		DIVIDEND
<u>NO.</u>	SYMBOL	COMPANY	(PER SHARE)	÷	(PER SHARE)	=	YIELD
1	AWR	AMERICAN STATES WATER CO.	\$0.90	÷	\$31.33	=	2.87%
2	CWT	CALIFORNIA WATER SERVICE GROUP	1.14	÷	36.29	=	3.14%
3	SWWC	SOUTHWEST WATER COMPANY	0.20	÷	13.87	=	1.44%
4	WTR	AQUA AMERICA, INC.	0.57	÷	32.68	=	1.75%
5	WATER COMPAN	Y AVERAGE					2.30%
6	CGC	CASCADE NATURAL GAS CORPORATION	\$0.96	÷	\$20.34	=	4.72%
7	KSE	KEYSPAN CORP.	1.82	÷	34.16	=	5.33%
8	LG	LACLEDE GROUP, INC.	1.38	÷	29.74	=	4.64%
9	NWN	NORTHWEST NATURAL GAS CO.	1.38	÷	34.73	=	3.97%
10	PGL	PEOPLES ENERGY CORPORATION	2.18	÷	36.48	=	5.98%
11	SJI	SOUTH JERSEY INDUSTIES, INC.	1.75	÷	28.20	=	6.21%
12	SWX	SOUTHWEST GAS CORPORATION	0.82	÷	26.75	=	3.07%
13	WGL	WGL HOLDINGS, INC.	1.33	÷	30.49	=	4.37%
16	NATURAL GAS L	DC AVERAGE					4.79%

#### **REFERENCES:**

COLUMN (A): ESTIMATED 12 MONTH DIVIDEND REPORTED IN VALUE LINE INVESTMENT

SURVEY - RATINGS & REPORTS DATED 10/28/2005 (WATER COMPANIES) AND 12/16/2005 (NATURAL GAS LDC's).

COLUMN (B): EIGHT WEEK AVERAGE OF CLOSING PRICES FROM 10/24/2005 TO 12/16/2005

STOCK QUOTES OBTAINED THROUGH BIG CHARTS WEB SITE - HISTORICAL QUOTES (www.bigcharts.com).

COLUMN (C): COLUMN (A) ÷ COLUMN (B)

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DIVIDEND GROWTH RATE CALCULATION

#### DOCKET NO. W-01303A-05-0405 SCHEDULE WAR - 4 PAGE 1 OF 2

LINE	STOCK	COMPANIX	(A) INTERNAL GROWTH		(B) EXTERNAL GROWTH		(C) DIVIDEND GROWTH
<u>NO.</u>	SYMBOL	COMPANY	( br )	- + -	(sv)	- = -	(g)
1	AWR	AMERICAN STATES WATER CO.	6.00%	+	1.72%	=	7.72%
2	CWT	CALIFORNIA WATER SERVICE GROUP	4.00%	+	2.54%	=	6.54%
3	SWWC	SOUTHWEST WATER COMPANY	6.00%	+	1.09%	=	7.09%
4	WTR	AQUA AMERICA, INC.	6.00%	+	1.45%	=	7.45%
5	WATER COM	PANY AVERAGE					7.20%
6	CGC	CASCADE NATURAL GAS CORPORATION	1.75%	+	0.47%	=	2.22%
7	KSE	KEYSPAN CORP.	3.00%	+	0.34%	=	3.34%
8	LG	LACLEDE GROUP, INC.	3.00%	+	0.35%	=	3.35%
9	NWN	NORTHWEST NATURAL GAS CO.	5.00%	+	0.31%	=	5.31%
10	PGL	PEOPLES ENERGY CORPORATION	3.00%	+	0.64%	=	3.64%
11	SJI	SOUTH JERSEY INDUSTIES, INC.	6.00%	+	1.07%	=	7.07%
12	SWX	SOUTHWEST GAS CORPORATION	6.00%	+	0.51%	=	6.51%
13	WGL	WGL HOLDINGS, INC.	5.00%	+	0.09%	=	5.09%
16	NATURAL GA	S LDC AVERAGE					4.57%

**REFERENCES**:

COLUMN (A): TESTIMONY, WAR

COLUMN (B): SCHEDULE WAR - 4, PAGE 2, COLUMN C

COLUMN (C): COLUMN (A) + COLUMN (B)

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DIVIDEND GROWTH RATE CALCULATION

#### DOCKET NO. W-01303A-05-0405 SCHEDULE WAR - 4 PAGE 2 OF 2

			(A)									(B)								(C) EXTERNAL
LINE NO.	STOCK SYMBOL	COMPANY	SHARE GROWTH	х	_{	[	( (	М	÷В	)	+	1	)	÷	2	] -	1	}	=	GROWTH (sv)
1	AWR	AMERICAN STATES WATER CO.	3.25%	x	{	[	( (	2	2.06	)	+	1	)	÷	2	] -	1	}	=	1.72%
2	CWT	CALIFORNIA WATER SERVICE GROUP	4.00%	х	{	[	( (	2	2.27	)	+	1	)	÷	2	] -	1	}	=	2.54%
3	SWWC	SOUTHWEST WATER COMPANY	2.00%	х	{	[	( (	2	2.09	)	+	1	)	÷	2	] -	1	}	=	1.09%
4	WTR	AQUA AMERICA, INC.	1.00%	х	{	[	( (	3	3.89	)	+	1	)	÷	2	] -	1	}	=	1.45%
5	WATER COMP	PANY AVERAGE																		1.70%
6	CGC	CASCADE NATURAL GAS CORPORATION	1.00%	х	{	[	( (	1	1.95	)	+	1	)	÷	2	] -	1	}	=	0.47%
7	KSE	KEYSPAN CORP.	2.00%	х	{	[	( (	1	1.34	)	+	1	)	÷	2	] -	1	}	=	0.34%
8	LG	LACLEDE GROUP, INC.	1.00%	x	{	[	( (	1	1.70	)	+	1	)	÷	2	] -	1	}	=	0.35%
9	NWN	NORTHWEST NATURAL GAS CO.	1.00%	х	{	[	( (	1	1.62	)	+	1	)	÷	2	] -	1	}	=	0.31%
10	PGL	PEOPLES ENERGY CORPORATION	1.75%	х	{	[	( (	1	1.73	)	+	1	)	÷	2	] -	1	}	=	0.64%
11	SJI	SOUTH JERSEY INDUSTIES, INC.	2.00%	х	{	[	( (	2	2.07	)	+	1	)	÷	2	] -	1	}	=	1.07%
12	SWX	SOUTHWEST GAS CORPORATION	3.00%	х	{	[	( (	1	1.34	)	+	1	)	÷	2	] -	1	}	=	0.51%
13	WGL	WGL HOLDINGS, INC.	0.25%	х	{	[	( (	1	1.71	)	+	1	)	÷	2	] -	1	}	=	0.09%
16	NATURAL GA	S LDC AVERAGE																		0.47%

#### **REFERENCES**:

COLUMN (A): TESTIMONY, WAR

COLUMN (B): VALUE LINE INVESTMENT SURVEY

- RATINGS & REPORTS DATED 10/28/2005 (WATER COMPANIES) AND 12/16/2005 (NATURAL GAS LDC's)

COLUMN (C): COLUMN (A) x COLUMN (B)

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DIVIDEND GROWTH COMPONENTS

LINE NO.	STOCK SYMBOL	WATER COMPANY NAME	OPERATING PERIOD	(A) RETENTION RATIO (b) x	(B) RETURN ON BOOK EQUITY (r) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1 2 3 4 5 6 7 8	AWR	AMERICAN STATES WATER CO.	2000 2001 2002 2003 2004 GROWTH 2000 - 2004 2005 2006 2008-10	0.3281 0.3556 0.3507 -0.1282 0.1524 0.2500 0.3724 0.5429	9.30% 10.10% 9.50% 5.60% 6.50% 8.00% 9.00% 12.00%	3.05% 3.59% 3.33% -0.72% <u>0.99%</u> 2.05% 2.00% 3.35% 6.51%	12.74 13.22 14.05 13.97 14.98 4.00%	15.12 15.12 15.18 15.21 16.77 17.25 18.00 20.00	2.62% 2.86% 3.60% 3.59%
10 11 12 13 14 15 16 17 18 19	CWT	CALIFORNIA WATER SERVICE GROUP	2000 2001 2002 2003 2004 GROWTH 2000 - 2004 2005 2006 2008-10	0.1603 -0.1915 0.1040 0.0744 0.2260 	10.10% 7.20% 9.50% 7.90% 9.00% 8.50% 10.00% 11.00%	1.62% -1.38% 0.99% 0.59% <u>2.03%</u> 0.77% 1.32% 3.24% 4.66%	12.90 12.95 13.12 14.44 15.65 1.00%	15.15 15.18 15.18 16.93 18.37 18.75 19.25 23.00	4.94% 2.07% 2.37% 4.60%
21 22 23 24 25 26 27 28 29 30	SWWC	SOUTHWEST WATER COMPANY	2000 2001 2002 2003 2004 GROWTH 2000 - 2004 2005 2006 2008-10	0.6500 0.6591 0.6098 0.6383 0.2083 0.4737 0.5600 0.6667	11.10% 11.40% 9.70% 9.10% 3.60% 6.00% 7.00% 9.50%	7.22% 7.51% 5.91% 5.81% 0.75% 5.44% 2.84% 3.92% 6.33%	3.61 4.03 4.49 5.14 6.48 13.00%	13.33 13.50 13.66 15.40 19.40 19.50 20.00 21.50	9.84% 0.52% 1.53% 2.08%
31 32 33 34 35 36 37 38 39	WTR	AQUA AMERICA, INC.	2000 2001 2002 2003 2004 GROWTH 2000 - 2004 2005 2006 2008-10	0.3871 0.4118 0.4028 0.3947 0.4235 0.4592 0.4727 0.4929	11.70% 12.40% 12.70% 10.20% 10.70% 12.00% 12.00% 12.50%	4.53% 5.11% 5.12% 4.03% <u>4.53%</u> 4.66% 5.51% 5.67% 6.16%	5.13 5.53 5.81 7.12 7.85 10.50%	83.87 85.48 84.90 92.59 <u>95.38</u> 96.00 96.50 98.00	3.27% 0.65% 0.59% 0.54%

#### **REFERENCES:**

COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY

- RATINGS & REPORTS DATED 10/28/2005

COLUMN (C): COLUMN (A) x COLUMN (B)

COLUMN (C): LINES 6, 16 & 26, SIMPLE AVERAGE GROWTH, 2000 - 2004

COLUMN (D): VALUE LINE INVESTMENT SURVEY

COLUMN (D): LINES 6, 16 & 26, COMPOUND GROWTH RATE

COLUMN (E): VALUE LINE INVESTMENT SURVEY

COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DIVIDEND GROWTH COMPONENTS

LINE	STOCK		OPERATING	(A) RETENTION	(B) RETURN ON	(C) DIVIDEND	(D) BOOK VALUE	(E) SHARES OUTST.	(F) SHARE
NO.	SYMBOL	NATURAL GAS LDC NAME	PERIOD		BOOK EQUITY (r) =		(\$/SHARE)	(MILLIONS)	GROWTH
<u>110.</u>	OTIVIDOL	TATOTAL GAG EDG TANIL	TENIOD		DOOK EQUITI (I)	OROWIII (g)	(WOTTAINE)	(WILLIONS)	GROWIII
1	CGC	CASCADE NATURAL GAS CORPORATI	ON 2000	0.3094	12.90%	3.99%	10.79	11.05	
2			2001	0.3469	13.30%	4.61%	11.01	11.05	
3			2002	0.1504	10.90%	1.64%	10.34	11.05	
4			2003	-0.1034	8.60%	-0.89%	10.11	11.13	
5			2004	0.1933	11.20%	2.16%	10.52	11.27	
6			GROWTH 2000 - 200	)4		2.30%	-		0.49%
7			2005	-0.1707	7.50%	-1.28%		11.41	1.24%
8			2006	-0.0105	9.00%	-0.09%		11.40	0.58%
9			2008-10	0.2160	8.50%	1.84%	7.00%	12.00	1.26%
10									
11	KSE	KEYSPAN CORP.	2000	0.1524	10.00%	1.52%	20.65	136.36	
12			2001	-0.0349	8.20%	-0.29%	20.73	139.43	
13			2002	0.3527	13.30%	4.69%	20.67	142.42	
14			2003	0.3206	11.40%	3.65%	22.94	159.66	
15			2004	0.2664	10.20%	<u>2.72%</u>	<u>24.22</u>	<u>160.82</u>	
16			GROWTH 2000 - 200			2.46%	1.50%		4.21%
17			2005	0.2571	9.50%	2.44%		174.50	8.51%
18			2006	0.2720	9.50%	2.58%		175.00	4.32%
19			2008-10	0.3226	10.50%	3.39%	5.00%	177.00	1.94%
20									
21	LG	LACLEDE GROUP, INC.	2000	0.0219	9.10%	0.20%	14.99	18.88	
22			2001	0.1677	10.50%	1.76%	15.26	18.88	
23			2002	-0.1356	7.80%	-1.06%	15.07	18.96	
24			2003	0.2637	11.60%	3.06%	15.65	19.11	
25			2004	0.2582	10.10%	2.61%	16.96	<u>20.98</u>	0.070/
26			GROWTH 2000 - 200		44.000/	1.31%	1.50%	24.00	2.67%
27			2005	0.2789	11.00%	3.07%		21.00	0.10%
28			2006	0.3050	11.00%	3.36%	0.500/	21.50	1.23%
29 30			2008-10	0.3696	8.50%	3.14%	9.50%	21.50	0.49%
30 31	NWN	NORTHWEST NATURAL GAS CO.	2000	0.3073	10.009/	2.070/	17.00	25.00	
	INVVIN	NORTHWEST NATURAL GAS CO.	2000	0.3351	10.00% 10.20%	3.07% 3.42%	17.93 18.56	25.23	
32 33			2001	0.3351	8.50%	3.42% 1.89%	18.88	25.23 25.59	
33 34			2002	0.2784	9.00%	2.51%	19.52	25.94	
35			2004	0.3011	8.90%	2.68%	20.64	27.55	
36			GROWTH 2000 - 200		0.5070	2.71%	3.50%	<u>21.55</u>	2.22%
37			2005	0.3767	10.00%	3.77%	3.30 /6	27.75	0.73%
38			2006	0.3822	10.50%	4.01%		28.00	0.73%
39			2008-10	0.4036	10.50%	4.24%	4.50%	29.00	1.03%
00			2000 10	0.4000	10.0070	<b>⊣.∠-</b> 7/0	7.5570	23.00	1.0070

#### **REFERENCES:**

COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY

- RATINGS & REPORTS DATED 12/16/2005

COLUMN (C): COLUMN (A) x COLUMN (B)

COLUMN (C): LINES 6, 16 & 26, SIMPLE AVERAGE GROWTH, 2000 - 2004

COLUMN (D): VALUE LINE INVESTMENT SURVEY

COLUMN (D): LINES 6, 16 & 26, COMPOUND GROWTH RATE

COLUMN (E): VALUE LINE INVESTMENT SURVEY

COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

#### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 DIVIDEND GROWTH COMPONENTS

NO.         SYMBOL         NATURAL GAS LDC NAME         PERIOD         RATIO (b)         x         BOOK EQUITY (r)         = GROWTH (g)         (\$/SHARE)         (MILLIONS)         G           1         PGL         PEOPLES ENERGY CORPORATION         2000         0.2620         12.40%         3.25%         22.02         35.30           2         2001         0.3544         13.90%         4.93%         22.76         35.40           3         2002         0.2607         12.30%         3.21%         22.74         35.46           4         2003         0.2613         12.30%         3.21%         23.11         36.69           5         2004         0.0092         9.40%         0.099         23.06         36.69           6         GROWTH 2000 - 2004         0.0354         10.80%         0.38%         2.50%           7         2005         0.0354         10.80%         0.38%         38.00           8         2006         0.0833         11.00%         0.92%         38.00	0.97% 3.57% 1.77% -0.94%
2     2001     0.3544     13.90%     4.93%     22.76     35.40       3     2002     0.2607     12.30%     3.21%     22.74     35.46       4     2003     0.2613     12.30%     3.21%     23.11     36.69       5     2004     0.092     9.40%     0.09%     23.06     36.69       6     GROWTH 2000 - 2004     2.94%     2.50%     2.50%       7     2005     0.0354     10.80%     0.38%     38.00       8     2006     0.0833     11.00%     0.92%     38.00	3.57% 1.77%
2     2001     0.3544     13.90%     4.93%     22.76     35.40       3     2002     0.2607     12.30%     3.21%     22.74     35.46       4     2003     0.2613     12.30%     3.21%     23.11     36.69       5     2004     0.092     9.40%     0.09%     23.06     36.69       6     GROWTH 2000 - 2004     2.94%     2.50%     2.50%       7     2005     0.0354     10.80%     0.38%     38.00       8     2006     0.0833     11.00%     0.92%     38.00	3.57% 1.77%
3     2002     0.2607     12.30%     3.21%     22.74     35.46       4     2003     0.2613     12.30%     3.21%     23.11     36.69       5     2004     0.0092     9.40%     0.09%     23.06     36.69       6     GROWTH 2000 - 2004     2.94%     2.50%     2.50%       7     2005     0.0354     10.80%     0.38%     38.00       8     2006     0.0833     11.00%     0.92%     38.00	3.57% 1.77%
4     2003     0.2613     12.30%     3.21%     23.11     36.69       5     2004     0.0092     9.40%     0.09%     23.06     36.69       6     GROWTH 2000 - 2004     2.94%     2.50%     2.50%       7     2005     0.0354     10.80%     0.38%     38.00       8     2006     0.0833     11.00%     0.92%     38.00	3.57% 1.77%
5     2004     0.0092     9.40%     0.09%     23.06     36.69       6     GROWTH 2000 - 2004     2.94%     2.50%     2.50%       7     2005     0.0354     10.80%     0.38%     38.00       8     2006     0.0833     11.00%     0.92%     38.00	3.57% 1.77%
6 GROWTH 2000 - 2004 2.94% 2.50% 38.00 7 2005 0.0354 10.80% 0.38% 38.00 8 2006 0.0833 11.00% 0.92% 38.00	3.57% 1.77%
7 2005 0.0354 10.80% 0.38% 38.00 8 2006 0.0833 11.00% 0.92% 38.00	3.57% 1.77%
8 2006 0.0833 11.00% 0.92% 38.00	1.77%
	-0.94%
9 2008-10 0.2516 12.00% 3.02% 2.00% 35.00	
10	
11 SJI SOUTH JERSEY INDUSTIES, INC. 2000 0.3241 14.80% 4.80% 7.25 23.00	
12 2001 0.3565 12.80% 4.56% 7.81 23.72	
13 2002 0.3852 12.50% 4.82% 9.67 24.41	
14 2003 0.4307 11.60% 5.00% 11.26 26.46	
15 <u>2004</u> 0.4810 12.50% <u>6.01%</u> <u>12.41</u> <u>27.76</u>	
16 GROWTH 2000 - 2004 5.04% 11.50%	4.81%
17 2005 0.5401 13.50% 7.29% 28.70	3.39%
18 2006 0.5350 13.00% 6.96% 29.00	2.21%
19 2008-10 0.5000 11.50% 5.75% 9.50% 31.00	2.23%
20	
21 SWX SOUTHWEST GAS CORPORATION 2000 0.3223 7.20% 2.32% 16.82 31.71	
22 2001 0.2870 6.60% 1.89% 17.27 32.49	
23 2002 0.2931 6.50% 1.91% 17.91 33.29	
24 2003 0.2743 6.10% 1.67% 18.42 34.23	
25 <u>2004</u> 0.5060 8.30% <u>4.20%</u> <u>19.18</u> <u>36.79</u>	
26 GROWTH 2000 - 2004 2.40% 2.40%	3.78%
27 2005 0.4143 7.00% 2.90% 39.00	6.01%
28 2006 0.5030 8.00% 4.02% 39.00	2.96%
29 2008-10 0.6653 10.50% 6.99% 4.00% 41.50	2.44%
30	
31 WGL WGL HOLDINGS, INC. 2000 0.3073 11.70% 3.59% 15.31 46.47	
32 2001 0.3298 11.70% 3.86% 16.24 48.54	
33 2002 -0.1140 7.20% NMF 15.78 48.56	
34 2003 0.4435 14.00% 6.21% 16.25 48.63	
35 <u>2004 0.3434</u> 11.70% <u>4.02%</u> <u>16.95</u> <u>48.67</u>	
36 GROWTH 2000 - 2004 4.42% 3.00%	1.16%
37     2005     0.3333     11.50%     3.83%     48.70	0.06%
38 2006 0.3649 10.50% 3.83% 48.70	0.03%
39 2008-10 0.4042 11.00% 4.45% 5.00% 48.80	0.05%

#### **REFERENCES:**

COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY

- RATINGS & REPORTS DATED 12/16/2005

COLUMN (C): COLUMN (A) x COLUMN (B)

COLUMN (C): LINES 6, 16 & 26, SIMPLE AVERAGE GROWTH, 2000 - 2004

COLUMN (D): VALUE LINE INVESTMENT SURVEY

COLUMN (D): LINES 6, 16 & 26, COMPOUND GROWTH RATE

COLUMN (E): VALUE LINE INVESTMENT SURVEY

COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 GROWTH RATE COMPARISON

#### WATER COMPANY SAMPLE:

LINE NO.	STOCK SYMBOL	(A)	(B) ZACKS EPS	EPS	(C) VALUE LINE PROJECTED DPS	BVPS	EPS	(D) VALUE LINE HISTORIC DPS	BVPS	(E) VALUE LINE & ZACKS AVGS.	EPS	(F) 5 - YEAR COMPOUND HISTORY DPS	BVPS
1	AWR	7.72%	-	12.00%	1.50%	3.50%	1.50%	1.00%	4.00%	3.92%	-4.83%	0.86%	4.13%
2	CWT	6.54%	6.00%	8.50%	1.50%	5.00%	-6.50%	1.00%	1.00%	2.36%	2.75%	0.67%	4.95%
3	SWWC	7.09%	-	15.00%	9.00%	9.00%	7.00%	10.50%	13.00%	10.58%	-11.99%	7.93%	15.75%
4	WTR	7.45%	-	10.00%	8.00%	9.00%	8.50%	6.50%	10.50%	8.75%	8.21%	6.56%	11.22%
5				11.38%	5.00%	6.63%	2.63%	4.75%	7.13%		-1.47%	4.01%	9.01%
	AV/EDA 050	7.000/	0.000/		7.070/			4.000/		0.400/		0.05%	
6	AVERAGES	7.20%	6.00%		7.67%			4.83%		6.40%		3.85%	

#### NATURAL GAS LDC SAMPLE:

		(A)	(B)		(C)			(D)		(E)		(F)	
LINE	STOCK		ZACKS		VALUE LINE PROJECTED			VALUE LINE HISTORIC		VALUE LINE &		5 - YEAR COMPOUND HISTORY	
NO.	SYMBOL	(br)+(sv)	EPS	EPS	DPS	BVPS	EPS	DPS	BVPS	ZACKS AVGS.	EPS	DPS	BVPS
1	CGC	2.22%	4.10%	3.00%	0.50%	7.00%	1.00%	-	-	3.12%	-3.81%	0.00%	-0.63%
2	KSE	3.34%	9.40%	1.00%	2.00%	5.00%	21.00%	4.00%	1.50%	6.27%	3.82%	0.14%	4.07%
3	LG	3.35%	3.50%	6.00%	1.50%	9.50%	-0.50%	0.50%	1.50%	3.14%	7.36%	0.19%	3.13%
4	NWN	5.31%	5.80%	8.00%	4.50%	4.50%	3.00%	1.00%	3.50%	4.33%	0.96%	1.19%	3.58%
5	PGL	3.64%	6.30%	3.00%	1.50%	2.00%	2.00%	2.00%	2.50%	2.76%	-5.30%	1.94%	1.16%
6	SJI	7.07%	5.30%	8.00%	6.00%	9.50%	10.50%	1.50%	11.50%	7.47%	9.98%	2.95%	14.38%
7	SWX	6.51%	4.50%	10.50%	1.50%	4.00%	1.50%	-	4.00%	4.33%	8.23%	0.00%	3.34%
8	WGL	5.09%	5.30%	5.00%	2.00%	5.00%	2.00%	1.50%	3.00%	3.40%	2.55%	1.19%	2.58%
9				5.56%	2.44%	5.81%	5.06%	1.75%	3.93%		2.97%	0.95%	3.95%
10	AVERAGES	4.57%	5.53%		4.60%			3.58%		4.35%		2.63%	

#### REFERENCES:

- COLUMN (A): SCHEDULE WAR 4, PAGE 1, COLUMN C
- COLUMN (B): ZACKS INVESTMENT RESEARCH (www.zacks.com)
- COLUMN (C): VALUE LINE INVESTMENT SURVEY RATINGS & REPORTS DATED 10/28/2005 (WATER COMPANIES) AND 12/16/2005 (NATURAL GAS LDC's)
- COLUMN (D): VALUE LINE INVESTMENT SURVEY RATINGS & REPORTS DATED 10/28/2005 (WATER COMPANIES) AND 12/16/2005 (NATURAL GAS LDC's)
- COLUMN (E): SIMPLE AVERAGE OF COLUMNS (B) THRU (D) LINES 1, 3, 5 AND 7
- COLUMN (F): 5-YEAR ANNUAL GROWTH RATE CALCULATED WITH DATA COMPILED FROM VALUE LINE INVESTMENT SURVEY
  - RATINGS & REPORTS DATED 10/28/2005 (WATER COMPANIES) AND 12/16/2005 (NATURAL GAS LDC's)

#### **BASED ON A GEOMETRIC MEAN:**

LINE	STOCK						(A)									(B) EXPECTED
NO.	SYMBOL	k	=	r <sub>f</sub>	+	[	ß	Х	(	r <sub>m</sub>	-	r <sub>f</sub>	)	]	=	RETURN
1	AWR	k	=	3.96%	+	[	0.70	х	(	10.40%	-	3.96%	)	]	=	8.47%
2	CWT	k	=	3.96%	+	[	0.75	х	(	10.40%	-	3.96%	)	]	=	8.79%
3	SWWC	k	=	3.96%	+	[	0.65	х	(	10.40%	-	3.96%	)	]	=	8.14%
4	WTR	k	=	3.96%	+	[	0.80	х	(	10.40%	-	3.96%	)	]	=	9.11%
5	RAGE			0.73									8.63%			
6	CGC	k	=	3.96%	+	[	0.80	х	(	10.40%	-	3.96%	)	]	=	9.11%
7	KSE	k	=	3.96%	+	[	0.85	х	(	10.40%	-	3.96%	)	]	=	9.43%
8	LG	k	=	3.96%	+	[	0.80	х	(	10.40%	-	3.96%	)	]	=	9.11%
9	NWN	k	=	3.96%	+	[	0.70	х	(	10.40%	-	3.96%	)	]	=	8.47%
10	PGL	k	=	3.96%	+	[	0.85	х	(	10.40%	-	3.96%	)	]	=	9.43%
11	SJI	k	=	3.96%	+	[	0.65	х	(	10.40%	-	3.96%	)	]	=	8.14%
12	SWX	k	=	3.96%	+	[	0.80	х	(	10.40%	-	3.96%	)	]	=	9.11%
13	WGL	k	=	3.96%	+	[	0.80	х	(	10.40%	-	3.96%	)	]	=	9.11%
14 NATURAL GAS LDC AVERAGE							0.78									8.99%

#### **REFERENCES:**

COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [ \beta (r_m - r_f) ]$$

WHERE: k = THE EXPECTED RETURN ON A GIVEN SECURITY

 $r_{\rm f}$  = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)

 $\ensuremath{\mathtt{S}}$  = THE BETA COEFFICIENT OF A GIVEN SECURITY

 $r_m$  = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

#### **NOTES**

- (a) A 6-WEEK AVERAGE OF THE 91-DAY T-BILL RATES THAT APPEARED IN <u>VALUE LINE INVESTMENT SURVEY'S</u>
  "SELECTION & OPINIONS" PUBLICATION FROM 11/11/2005 THROUGH 12/16/2005 WAS USED AS A RISK FREE RATE
  OF RETURN.
- (b) THE MARKET RATE PROXY USED WAS THE ARITHMETIC MEAN FOR S&P 500 RETURNS OVER THE 1926 2004 PERIOD. THE DATA WAS OBTAINED FROM IBBOTSON ASSOCIATES' STOCKS, BONDS, BILLS AND INFLATION: 2004 YEARBOOK.

#### BASED ON AN ARITHMETIC MEAN:

LINE NO.	STOCK SYMBOL	k	=	r <sub>f</sub>	+	]	(A) ß	х	(	r <sub>m</sub>	-	r <sub>f</sub>	)	]_	=	(B) EXPECTED RETURN
1	AWR	k	=	3.96%	+	[	0.70	х	(	12.40%	-	3.96%	)	]	=	9.87%
2	CWT	k	=	3.96%	+	[	0.75	х	(	12.40%	-	3.96%	)	]	=	10.29%
3	SWWC	k	=	3.96%	+	[	0.65	х	(	12.40%	-	3.96%	)	]	=	9.44%
4	WTR	k	=	3.96%	+	[	0.80	х	(	12.40%	-	3.96%	)	]	=	10.71%
5	5 WATER COMPANY AVERAGE							]								10.08%
6	CGC	k	=	3.96%	+	[	0.80	X	(	12.40%	-	3.96%	)	]	=	10.71%
7	KSE	k	=	3.96%	+	[	0.85	x	(	12.40%	-	3.96%	)	]	=	11.13%
8	LG	k	=	3.96%	+	[	0.80	x	(	12.40%	-	3.96%	)	]	=	10.71%
9	NWN	k	=	3.96%	+	[	0.70	X	(	12.40%	-	3.96%	)	]	=	9.87%
10	PGL	k	=	3.96%	+	[	0.85	X	(	12.40%	-	3.96%	)	]	=	11.13%
11	SJI	k	=	3.96%	+	[	0.65	X	(	12.40%	-	3.96%	)	]	=	9.44%
12	SWX	k	=	3.96%	+	[	0.80	X	(	12.40%	-	3.96%	)	]	=	10.71%
13	WGL	k	=	3.96%	+	[	0.80	x	(	12.40%	-	3.96%	)	]	=	10.71%
14 NATURAL GAS LDC AVERAGE							0.78									10.55%

#### REFERENCES:

COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [ \beta (r_m - r_f) ]$$

WHERE: k = THE EXPECTED RETURN ON A GIVEN SECURITY

 $r_{\rm f}$  = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)  ${\rm \&}$  = THE BETA COEFFICIENT OF A GIVEN SECURITY

IS = IHE BETA COEFFICIENT OF A GIVEN SECURITY<math>IS = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

#### **NOTES**

- (a) A 6-WEEK AVERAGE OF THE 91-DAY T-BILL RATES THAT APPEARED IN <u>VALUE LINE INVESTMENT SURVEY'S</u>
  "SELECTION & OPINIONS" PUBLICATION FROM 11/11/2005 THROUGH 12/16/2005 WAS USED AS A RISK FREE RAT
  OF RETURN.
- (b) THE MARKET RATE PROXY USED WAS THE ARITHMETIC MEAN FOR S&P 500 RETURNS OVER THE 1926 2004 PERIOD. THE DATA WAS OBTAINED FROM IBBOTSON ASSOCIATES' STOCKS, BONDS, BILLS AND INFLATION: 2004 YEARBOOK.

LINE <u>NO.</u>	YEAR	(A) CHANGE IN CPI	(B) CHANGE IN GDP (1996 \$)	(C) PRIME RATE	(D) FED. DISC. RATE	(E) FED. FUNDS RATE	(F) 91-DAY T-BILLS	(G) 30-YR T-BONDS	(H) A-RATED UTIL. BOND YIELD	(I) Baa-RATED UTIL. BOND YIELD
1	1990	5.40%	1.90%	10.01%	6.98%	8.10%	7.49%	8.61%	9.86%	10.06%
2	1991	4.21%	-0.20%	8.46%	5.45%	5.69%	5.38%	8.14%	9.36%	9.55%
3	1992	3.01%	3.30%	6.25%	3.25%	3.52%	3.43%	7.67%	8.69%	8.86%
4	1993	2.99%	2.70%	6.00%	3.00%	3.02%	3.00%	6.60%	7.59%	7.91%
5	1994	2.56%	4.00%	7.14%	3.60%	4.20%	4.25%	7.37%	8.31%	8.63%
6	1995	2.83%	2.50%	8.83%	5.21%	5.84%	5.49%	6.88%	7.89%	8.29%
7	1996	2.95%	3.70%	8.27%	5.02%	5.30%	5.01%	6.70%	7.75%	8.17%
8	1997	1.70%	4.50%	8.44%	5.00%	5.46%	5.06%	6.61%	7.60%	8.12%
9	1998	1.60%	4.20%	8.35%	4.92%	5.35%	4.78%	5.58%	7.04%	7.27%
10	1999	2.70%	4.50%	7.99%	4.62%	4.97%	4.64%	5.86%	7.62%	7.88%
11	2000	3.40%	3.70%	9.23%	5.73%	6.24%	5.82%	5.94%	8.24%	8.36%
12	2001	1.60%	0.80%	6.92%	3.41%	3.88%	3.38%	5.95%	7.59%	8.02%
13	2002	2.40%	1.60%	4.67%	1.17%	1.66%	1.60%	5.38%	7.41%	7.98%
14	2003	1.90%	2.70%	4.12%	2.03%	1.13%	1.01%	4.92%	6.18%	6.64%
15	2004	2.23%	4.20%	4.34%	2.35%	1.35%	1.37%	5.03%	5.77%	6.20%
16	CURRENT	2.99%	4.30%	7.25%	5.25%	4.25%	3.93%	4.67%	5.65%	6.06%

#### **REFERENCES**:

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COLUMN (H) THROUGH (J): 1990 - 2000, MOODY'S PUBLIC UTILITY REPORTS

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### ARIZONA-AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT TEST YEAR ENDED DECEMBER 10, 2004 CAPITAL STRUCTURES OF SAMPLE COMPANIES

LINE NO.		 AWR	PCT.	CWT	РСТ.	SWWC	PCT.	WTR	PCT.	WATER CO AVERAGE	MPANY PCT.
1 2	DEBT	\$ 228.9	47.7%	274.8	48.6%	\$ 115.8	47.9%	\$ 784.5	51.2%	\$ 468.0	49.8%
3 4	PREFERRED STOCK	0.0	0.0%	3.5	0.6%	0.0	0.0%	0.0	0.0%	1.2	0.1%
5	COMMON EQUITY	 251.5	52.3%	287.6	50.8%	126.2	52.1%	748.5	48.8%	471.2	50.1%
6 7 8	TOTALS	\$ 480.4	100%	565.9	100%	\$ 242.0	100%	\$ 1,532.9	100%	\$ 940.4	100%
9 10		CGC	PCT.	KSE	PCT.	LG	PCT.	NWN	PCT.		
11		 CGC	<u> </u>	NOL	<u> </u>	LG	<u> </u>	INVVIN	<u> </u>		
12	DEBT	\$ 176.4	59.8%	4,418.7	53.0%	\$ 380.3	51.6%	\$ 568.5	54.0%		
13 14 15	PREFERRED STOCK	0.0	0.0%	19.7	0.2%	1.1	0.1%	0.0	0.0%		
16	COMMON EQUITY	118.5	40.2%	3,894.7	46.7%	355.9	48.3%	484.0	46.0%		
17 18 19	TOTALS	\$ 294.9	100%	8,333.1	100%	\$ 737.3	100%	\$ 1,052.5	100%		
20							***			NATURAL G	
21 22		 PGL	PCT.	SJI	PCT.	SWX	PCT.	WGL	PCT.	AVERAGE	PCT.
23 24	DEBT	\$ 897.4	50.8%	328.9	48.7%	\$ 1,181.4	60.8%	\$ 590.2	40.1%	\$ 1,067.7	52.5%
25 26	PREFERRED STOCK	0.0	0.0%	1.7	0.3%	100.0	5.1%	28.1	1.9%	18.8	0.9%
27	COMMON EQUITY	870.1	49.2%	344.4	51.0%	663.0	34.1%	853.4	58.0%	948.0	46.6%
28 29	TOTALS	\$ 1,767.5	100%	675.0	100%	\$ 1,944.4	100%	\$1,471.7	100%	\$ 2,034.6	100%

REFERENCE: 2004 SEC 10-K FILINGS